ESCIENT®

FireBall™

MP-150 USER'S MANUAL

gracenote™

P/N: M22007-01A2

THANK YOU

The team at Escient would like to take this opportunity to thank you for purchasing an Escient FireBall product. Escient is committed to providing our customers the most technologically advanced, yet easier-than-ever to use products that converge the power of the Internet with home entertainment.

To maximize your enjoyment, please take a few minutes to review this User's Manual. It will guide you through all the features and benefits of your new FireBall.

If you should need assistance please call our Customer Support Staff at 800.372.4368

The Escient Team

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PRODUCT INTRODUCTION

Thank you for purchasing the FireBall MP-150, the next generation media management system from Escient (A division of Digital Networks North America).

ABOUT THIS MANUAL

This FireBall MP-150 User's Manual is intended to provide the reader with an overview of the main features and benefits of the Escient FireBall MP-150 Digital Music Player. For more technical information, please refer to the Escient web site (www.escient.com) or contact your Escient dealer.

RECORD YOUR SERIAL NUMBER

The serial number for this unit is located at the rear of the device. Please record the serial number in the space provided below. Refer to it whenever you call Escient Tech Support regarding this product.

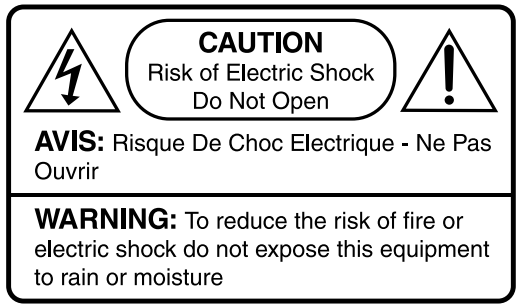
FireBall Serial Number: _____

MANUAL DISCLAIMERS

At the time of printing, the FireBall MP-150 screen shot images in this manual matched the FireBall MP-150 interface screens. However, since FireBall MP-150 has the capability of downloading software updates and enhancements on a regular basis, the resulting screen updates may no longer match the images in this manual. Check the Escient website for more information on software updates.

WARNINGS AND PRECAUTIONS

- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Do not block any ventilation openings.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- To reduce the risk of electric shock, do not remove the cover. No user serviceable parts are inside. Refer servicing to qualified service personnel.
- To prevent electric shock, do not use a 3 wire to 2 wire adapter plug.
- A three prong grounded outlet is required.
- You are cautioned that any change or modification not expressly approved in this manual or approved in writing by an authorized representative of Escient could void your warranty and/or your authority to operate this equipment.
- Prolonged use of any video device which produces a static (non-moving, non-changing) or repetitive image on your projector, television or plasma display device can cause “screen burn-in”. You are encouraged to leave the FireBall MP-150 screen-saver turned on and set to the lowest possible “time-out” duration. Warning: This device uses the mains plug as the means to disconnect the unit, this unit remains powered unless disconnected from the mains source.


CAUTION
Risk of Electric Shock
Do Not Open
AVIS: Risque De Choc Electrique - Ne Pas Ouvrir
WARNING: To reduce the risk of fire or electric shock do not expose this equipment to rain or moisture

TRADEMARKS & SERVICE MARKS

Escient®, the Escient logo, and **FireBall™** are trademarks of Digital Networks North America.

Physital™ is a trademarks of **Escient®**.
Other product names mentioned herein are used for identification purposes only and may be trademarks of their respective companies.

Music recognition technology and related data are provided by Gracenote®. Gracenote is the industry standard in music recognition technology and related content delivery. For more information visit www. gracenote.com.

CD and music-related data from Gracenote, Inc., copyright © 2000-2005 Gracenote.

Gracenote CDDB® Client Software, copyright 2000-2005 Gracenote. This product and service may practice one or more of the following U.S. Patents: #5,987,525; #6,061,680; #6,154,773, #6,161,132, #6,230,192, #6,230,207, #6,240,459, #6,330,593, and other patents issued or pending. Services supplied and/or device manufactured under license for following Open Globe, Inc. United States Patent #6,304,523.

Gracenote and CDDB are registered trademarks of Gracenote. The Gracenote logo and logotype, and the “Powered by Gracenote” logo are trademarks of Gracenote.

WARRANTY INFORMATION

Terms of Coverage - Each Escient branded media management system sold comes with a standard one (1) year warranty. This warranty provides no-charge coverage under normal product usage, for a period of one year from the date of registration and/or purchase (whichever is earlier). This warranty program provides the following key features and benefits:

- Twelve (12) months service, parts and labor.
- Five (5) day turn around time on all standard in-warranty repairs. No charges to the customer other than in-bound shipping charges which are determined by the shipping method. All return shipments will be via Standard Ground Transportation (approximately 5 business days).
- Twelve (12) months of regular hour telephone support (9AM to 7PM EST), Monday through Friday.
- 24-hour email response from the Escient Support Website.
- Software maintenance updates provided via a broadband or dial-up Internet connections.
- Access to 24-hour music and movie databases and entertainment services providing access to thousands of CD and DVD titles and associated information.

What is Covered - The goal of this warranty is to cover operational problems that might arise with your product during normal use. This includes failure to start, improper operation, or intermittent failures. As part of the warranty, Escient will pay for all labor and materials used in the repair of the system. Escient reserves the right to use new or factory refurbished parts in the repair of these in-warranty systems. Escient will also pay for the return shipment of the repaired system via standard ground transportation. At Escient's discretion, the Company will repair or replace any system sent in for repair. Upon repair, the product will be new or like-new in condition and will meet all necessary regulatory requirements.

What is Not Covered - Escient products are sold through Escient approved dealers. A number of items must remain intact in order for Escient to verify and validate this warranty. Additionally, there are several conditions which violate Escient's warranty program. These include:

- The product was not purchased through an approved Escient Dealer.
- Any product, on which the serial numbers has been defaced, modified or removed physically or electronically will not be covered by an Escient warranty.
- Escient will not cover under warranty damage to the product as a result of accident, misuse, abuse, neglect, fire, water, lightning, or other acts of God or nature, improper storage, unauthorized modification, or failure to follow instructions.

- Any type of unauthorized repair or modifications made to the system resulting in damage to the product will not be covered under this warranty.
- Damage caused to the product as a result of improper shipping or installation.
- Any problems related to the use of the product which is not a direct problem with the product.
- Damage caused to the product as a result of improper installation to third party peripherals or products, or incorrect connection to peripheral or products.
- Additionally, Escient does not cover the following items under the terms or its warranty programs:
- Installation or removal charges.
- Cost of initial technical adjustments (setup costs).
- Battery replacement.

Escient's sole liability for any defective product is limited to the repair or replacement of the product at our discretion. Escient shall not be liable for damages to other property caused by defects in this product, damages based upon inconvenience, loss of use of the product, loss of time or data, commercial loss or any other damages, whether real, incidental or consequential.

Escient shall not be liable for damage or loss of data including but not limited to music recorded to storage devices. It is the customer's responsibility to maintain the original media and/or appropriate backup copies within the specific rights of the media's copyright holder.

How to Return a Product - Contact your dealer or Escient's Customer Support group at 800-372-4368.

Please have the following information ready for your dealer or Escient's Customer Support technician:

- Product Serial Number
- Model Number
- Date of Registration or Purchase
- Place of Purchase

Upon reviewing the request for repair under warranty provisions, Escient's Technical Support group will issue a Return Material Authorization (RMA) number. This number is to be attached to the outside of the shipping carton. Additional instructions will be provided by technical support. Please be sure to use original packing carton and internal packing materials to assure proper shipment of the system. Insurance costs are the responsibility of the

customer. Most shippers only provide standard coverage for $100 in cost so please protect yourself by providing additional insurance for the returned product.

Out of Warranty Repair - Escient provides out of warranty repair service on a cost plus labor basis. Minimum charges will apply. Technical support will provide information on this service at the time of the call.

ESCIENT PRIVACY POLICY

Escient is committed to providing you with a product that you enjoy and are confident in using, and are committed to providing services in a private and secure environment.

We recognize and respect each individual user's privacy and have created this Privacy Policy to demonstrate our commitment to your privacy.

We want you to be fully informed about the information that we collect, why we collect it, and with whom we share it.

It is our hope that, after reading this notice, you will understand our commitment to privacy and be confident that we will use your information responsibly. By using the Escient FireBall MP-150, you are accepting the practices described in this Privacy Policy.

The option to read the Escient Privacy Policy appears on the zip code screen of the Quick Start automatic setup procedure. In addition, you can access the statement at any time by pressing the **SETUP** key and choosing the option: user information, privacy policy.

CONTACT INFORMATION

Escient may be contacted by using the following information. Once you have worked with your local Escient dealer, we encourage you to contact us if you are in need of any further assistance.

6325 Digital Way
Indianapolis, Indiana 46278
Phone: 800-372-4368 Press "2" for Sales, or "3" for Support
Fax: 317-616-6790
Internet: www.escient.com Email: support@escient.com
Hours: Monday - Friday 9:00am - 7pm EST

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TERMS AND DEFINITIONS

Following are terms used throughout this manual:

- **Button -** refers to a graphic item on the display screen.
- **Group -** a collection of similar music titles. Standard genre groups are provided and custom groups can be created by the user.
- **Highlight -** highlighting is used to indicate the user's selection on screen. When the selection moves up, down, left, or right, the highlight moves to the next nearest item. No action is taken (except that more information may be displayed on the screen) until the Select key is pressed.
- **Info Text Area -** the portion of the guide screen used to display information about the highlighted title.
- **Playlist -** a collection of one or more music tracks or songs.
- **Title -** Music name or a collection of music tracks commonly referred to as a CD, Album or Playlist.
- **Key -** refers to one of the buttons on your remote or keyboard.
- **MP3 -** a compressed digital audio format. MP3 files are smaller than the original CD tracks and sound almost identical.
- **FLAC -** a lossless compressed digital audio format. FLAC files are smaller than the original CD tracks and are bit for bit duplicates of the original.
- **Guide -** a grid or list of information, used to browse your media library.
- **Player -** the screen used to display the currently playing media.

SETUP

This manual assumes that you followed the printed "Quick Setup" guide that came with your FireBall. If you have not properly connected your FireBall to your audio/video system, please go back and follow the "Quick Setup" guide before continuing with this User Manual.

FireBall™ DIGITAL MUSIC PLAYER MP-150

Quick Setup

ESCIENT
6325 Digital Way, Indianapolis, Indiana 46278
Phone: 800-372-4368 Press "3" For Support
Hours: Monday - Friday 9:00am - 7pm EST
Fax: 317-616-6790
www.escient.com
Email: support@escient.com
Document Number: M22150-01A1
Feb 2005

1. UNPACK YOUR NEW FIREBALL™ MP-150

- Unpack the FireBall, cables, and accessories (save the box).
- Install the included batteries into the remote.
- Make note of the serial number (located on the back).

SERIAL NUMBER: _____

2. CONNECT FIREBALL TO YOUR AUDIO SYSTEM

A) Locate the included composite video and analog audio cables.
B) Connect FireBall to any available A/V input on your receiver or TV.

Note: You may use optional s-video or component video cables and optional digital audio cables for the best picture and sound quality. Contact your Escient dealer for more information.

3. CONNECT FIREBALL MP-100 TO THE FIREBALL SERVER

FireBall MP-150 streams audio from FireBall Servers over an Ethernet network. Connect the FireBall MP-150 to a FireBall Server via an Ethernet hub or router using the included Ethernet cable. The FireBall MP-150 can also stream Internet Radio stations if you have a broadband Internet connection.

A) Connect the FireBall MP-150 to your Ethernet network using a standard Ethernet cable (included)

Note: There are optional wireless (WIFI or 802.11) and A/C power line (HomePlug) network bridges that will allow you to connect your FireBall to your Ethernet network if there are no Ethernet jacks close to where you install FireBall.

Additional information on networking can be found in the Setup section of the FireBall MP-150 User's Manual or on-line at the Escient FireBall support web-site: www.escient.com/support.html.

4. CONNECT THE POWER CORD TO AN AC OUTLET AND TURN IT ON

A) Plug FireBall into an AC power outlet.

Note: The power LED on the front of the FireBall will begin to flash. The power LED will turn solid RED once the FireBall has completed its initialization process indicating the unit is in standby.

B) Once the power LED has stopped flashing, press the power button on the front panel or on the remote to turn on the FireBall MP-150 (the power LED will turn BLUE). The FireBall welcome screen should now be displayed on your TV.

Note: You may have to press the FB1 button on FireBall's remote to configure it to control the FireBall MP-150.

5. FIREBALL QUICKSTART AND REGISTRATION

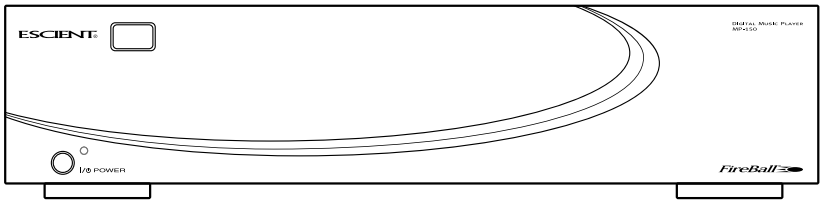
A) The initial screens that are displayed by FireBall are called the QuickStart screens and are used to configure your Internet connection information.

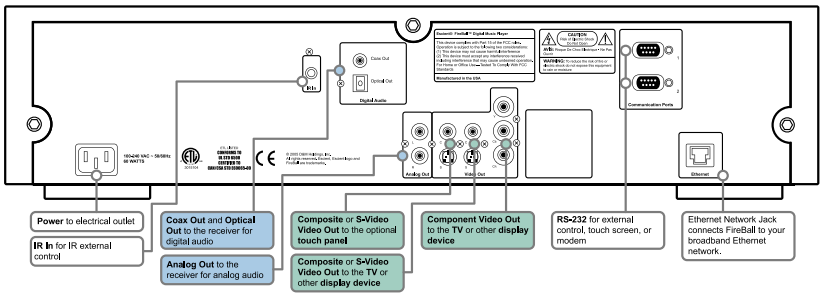
B) Press the Select key on the FireBall remote to display the first QuickStart screen and then follow the on-screen directions for completing the Quick Start and registration process.

C) Refer to your FireBall User's Guide for more detailed information.

Note: The MP-150 requires an Internet connection to complete the registration process. If the Internet connection method is dialup then an external modem must be used with the MP-150. An alternate method would be to use Internet connection sharing via a PC or dialup router. Contact your Escient dealer for more information.

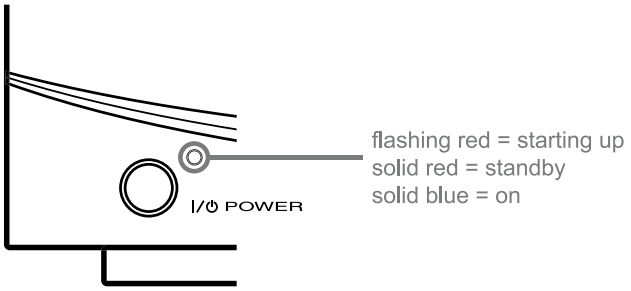
RECEIVER CONNECTION
DISPLAY CONNECTION
GENERAL CONNECTION




Coax Out
Optical Out
Digital Audio
Analog Out
Video Out
Communication Ports
Ethernet
Power to electrical outlet
IR In for IR external control
Coax Out and Optical Out to the receiver for digital audio
Analog Out to the receiver for analog audio
Composite or S-Video Video Out to the optional touch panel
Composite or S-Video Video Out to the TV or other display device
Component Video Out to the TV or other display device
RS-232 for external control, touch screen, or modem
Ethernet Network Jack connects FireBall to your broadband Ethernet network.

POWER STATES

After the FireBall MP-150 unit is plugged in, the Standby LED located next to the power button will flash red until the startup process is complete. **Please wait. This may take several minutes.**



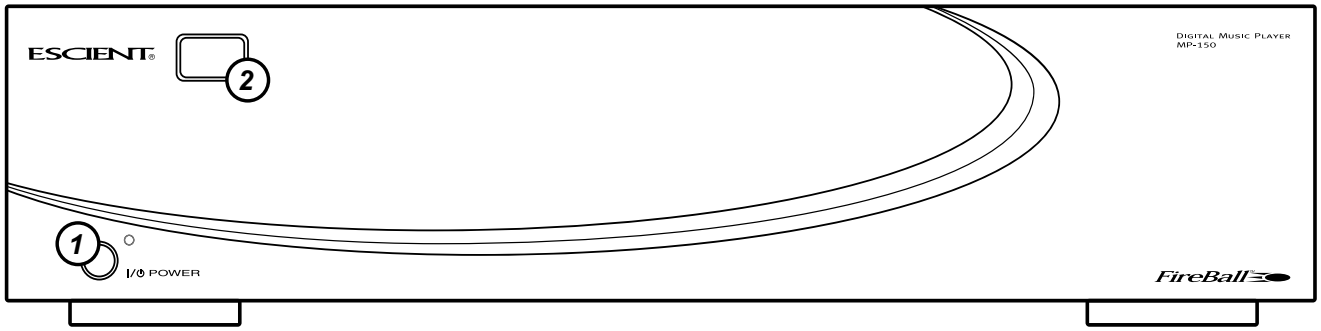
When the Standby LED is solid RED, the FireBall is now in a standby or "sleep" mode. There is no video output when FireBall is in standby mode. Press the Power button (on the front panel or on the remote) once and the video output is displayed on your TV. The unit is now ON and the LED will be solid blue.

To change from the ON mode back to the standby or "sleep" mode, press the Power button on the front panel or on the remote once. The video output will go blank and the LED will be solid red.

If power is removed from FireBall for any reason, including a power outage or if the unit is unplugged, FireBall will automatically return to the Standby state as soon as power is restored. When FireBall is turned on again, FireBall will return to the same source mode that it was in when power was lost.

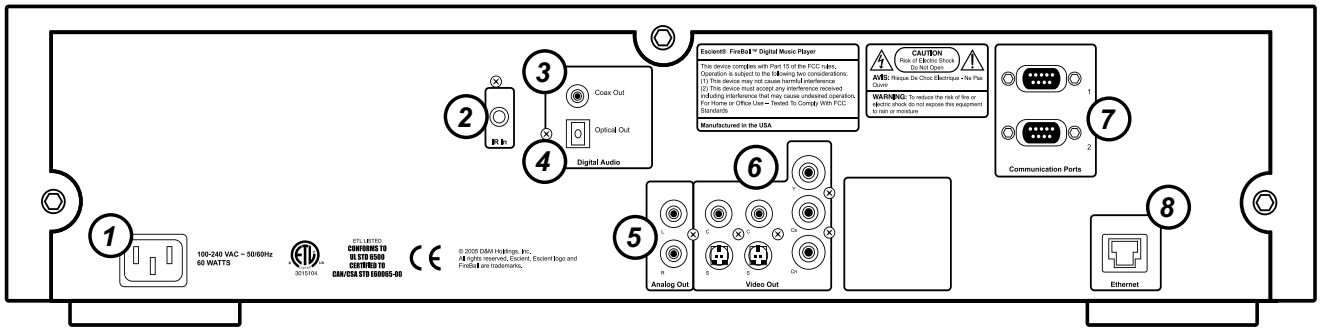
To force the FireBall to restart, PRESS and HOLD the Power button for 4 seconds, and release it when the standby LED starts blinking. When the Standby LED is RED and FireBall MP-150 has completed its startup process, press the Power button once to turn on the FireBall MP-150.

FRONT PANEL OVERVIEW



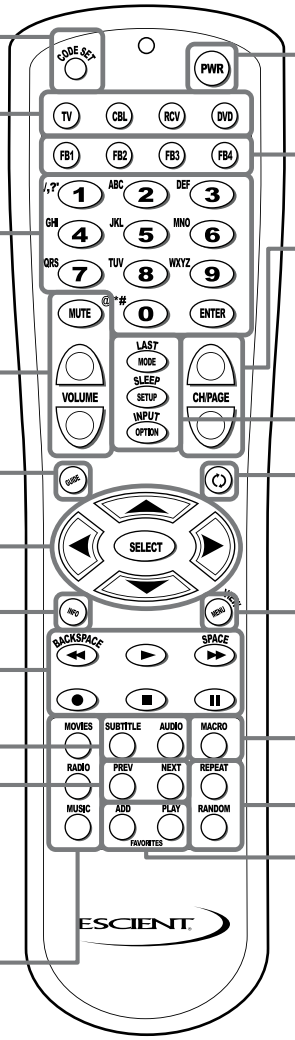
1 - POWER
2 - IR WINDOW

REAR PANEL OVERVIEW



1 - POWER
2 - IR IN
3 - DIGITAL AUDIO COAX OUT
4 - DIGITAL AUDIO OPTICAL OUT
5 - ANALOG AUDIO OUT
6 - VIDEO OUT
7 - COMMUNICATION PORTS
8 - ETHERNET

REMOTE CONTROL OVERVIEW



CODE SET
Code Set - used to set the universal IR source buttons. See manual for details.

UNIVERSAL SOURCE SELECT
TV / Cable / Receiver / DVD - used to configure the remote to control other devices. See manual for details on the universal remote functions.

KEY PAD
Alpha / Numeric / Enter - used for entering numbers and text. Also used for searching in the movies, music and radio guides.

VOLUME CONTROL
Volume Up / Volume Down / Mute - Universal remote can be configured to operate volume on TVs and receivers. See manual for detailed setup steps.

GUIDE
Guide / Player - toggles between Guide and Player screens.

NAVIGATION & SELECT
Up / Down / Left / Right / Select - used to navigate and select on-screen menus and buttons.

INFO
Info - displays additional movie and music info

TRANSPORT CONTROLS
Rewind / Play / Forward / Record / Stop / Pause - used to control playback of movies and music. Also used for text entry and for canceling certain operations.

DVD FUNCTIONS
Subtitle / Audio - used to toggle subtitle and audio tracks on and off when watching a movie.

DISC PLAY FUNCTIONS
Previous / Next - skip disc functions.

MODE GUIDE SELECT
Movies / iRadio / Music - used to select FireBall modes.

POWER
Power - used to toggle the current source device on and off.

FIREBALL SELECT
FireBall 1 / FireBall 2 / FireBall 3 / FireBall 4 - use FB1 to control the FireBall. Use other FB buttons if additional FireBall products are installed.

CHANNEL / PAGE CONTROL
Channel/Page Up/Down - used to page up and down in Guide and Player screens.

CONTROL
Mode - changes music play modes: normal, random, repeat etc.
Setup - displays Setup menu.
Options - displays Options menu.

ALL / NONE
Toggle ALL or NONE on Select Guides.

VIEW / MENU
View / Menu - toggles through various Guide Views (artist, title, cover).

MACRO FUNCTION
Macro Function - used to directly access various music, movie and radio items and controls.

MUSIC PLAY FUNCTIONS
Repeat / Random - used to cause the system to play the current group/genre in repeat or random playback mode.

MUSIC FAVORITES
Add-Favorites / Play-Favorites - used to add the currently highlighted music track to the Favorites playlist and to play the favorites playlist.

ENTERING TEXT WITH THE REMOTE CONTROL

The remote control can be used to enter text in all text fields. This text entry capability is provided to allow you to fill out short text fields – such as those that occur in the setup and edit screens. FireBall MP-150's wireless keyboard should be used when extended typing is required.

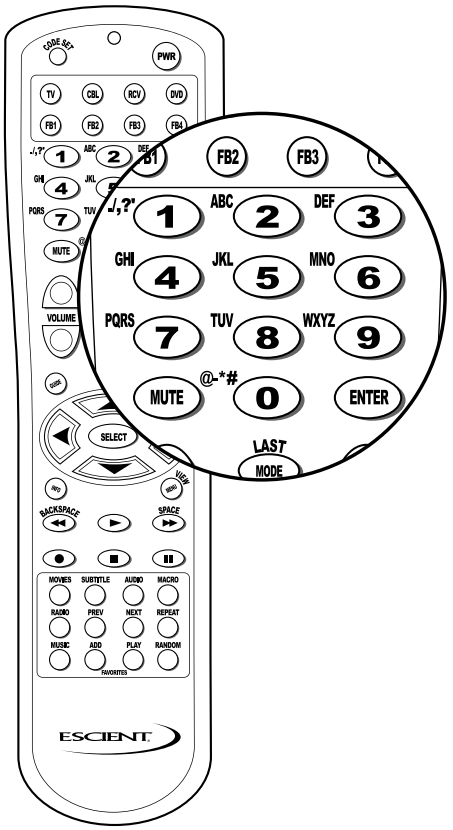
Entering Numeric Entry Mode

In fields where FireBall MP-150 expects only numeric characters to be entered (such as phone number fields), an indicator will appear on the screen that displays the letters "123" indicating that only numbers can be entered.

Typing Characters with the Remote

The remote control based text entry capability is similar to that provided on standard telephones and cell phones. Each numeric key has characters associated with it that can be accessed by pressing the key one or more times. You have .5 seconds after a key is pressed to enter a second character from the same key. If you press the same key within .5 seconds, the second character associated with that key replaces the initial character. If you do not press the same key within .5 seconds, the text cursor moves to the next location so that the same key can be pressed again to enter a second character.

The "2", "3", "4", "5", "6", and "8" keys each support three letters and one number and can be pressed from one to seven times to display upper case, lower case, and numeric characters. The "7" and "9" keys both support four letters and one number and can be pressed from one to nine times. The "1" and "0" keys support all of the special characters and will cycle through each character for every key press.



The text characters follow the same convention used by a standard telephone – except in the case of the "1" and "0" keys which contain additional characters.

When entering characters at the beginning of a field or characters that follow a space, FireBall MP-150 assumes that upper case characters are

preferred. Therefore, characters are entered in the following cycle – uppercase, lowercase, and numeric. For example, the first key press enters an uppercase letter corresponding to the first letter associated with the key. Pressing the "2" key once displays an "A" in the text field, pressing the "2" key twice displays a "B", pressing it again will display a "C". The fourth key press displays a lower case "a", the fifth key press displays a lower case "b", and the sixth key press displays a lower case "c". Lastly, pressing the "2" key a seventh time displays the number "2".

When entering the second character in a text field or the second character following a space, FireBall MP-150 assumes that lower case is preferred and the character entry cycles in the following pattern – lowercase, uppercase, and numeric.

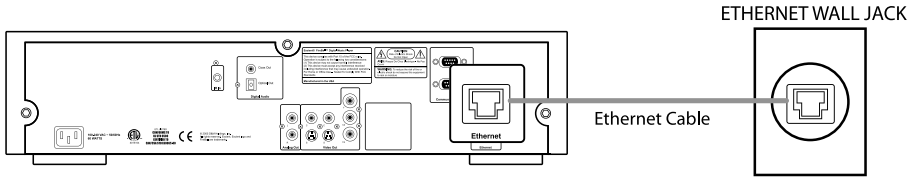
The following text entry table describes the sequence of characters that appear when specific keys are pressed on the remote:

Key	Alpha Mode 1st character or 1st character after a space	Alpha Mode 2nd character or 2nd character after a space
1	1. / , ? ' : ; &~!	1. / , ? ' : ; &~!
2	ABCabc2	abcABC2
3	DEFdef3	defDEF3
4	GHIghi4	ghiGHI4
5	JKLjkl5	jklJKL5
6	MNOmno6	mnoMNO6
7	PQRSpqrs7	pqrsPQRS7
8	TUVtuv8	tuvTUV8
9	WXYZwxyz9	wxyzWXYZ9
0	0@ _ - * # [ ] ( )+=	0@ _ - * # [ ] ( )+=

CONNECTING TO FIREBALL SERVER

FireBall MP-150 streams audio from a FireBall Server over an Ethernet network. Your FireBall MP-150 Music Player must be on the same Ethernet network as your FireBall server. This section will assume that you have properly connected your FireBall client to the same network as your FireBall server. Please refer to the FireBall MP-150 Quick Setup document for instructions on properly connecting your FireBall MP-150 to your Ethernet network before proceeding with this section.

If your FireBall MP-150 is properly configured on the same Ethernet network as your FireBall Music Server, the MP will automatically select the first server it sees on the network and connect to it upon startup. You won't have to do anything else.

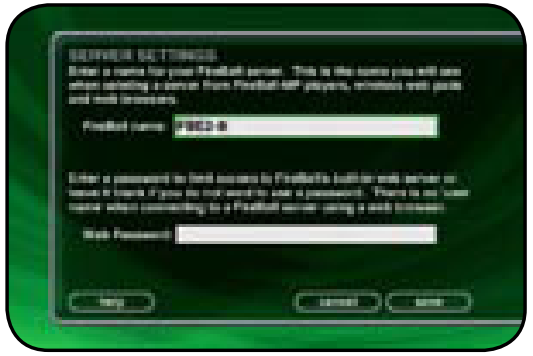


CONNECTING TO A DIFFERENT FIREBALL SERVER

If you have more than one server on your network, you can manually select a different server using the Server Connection screen.

Follow these steps to manually select a FireBall Music Server:

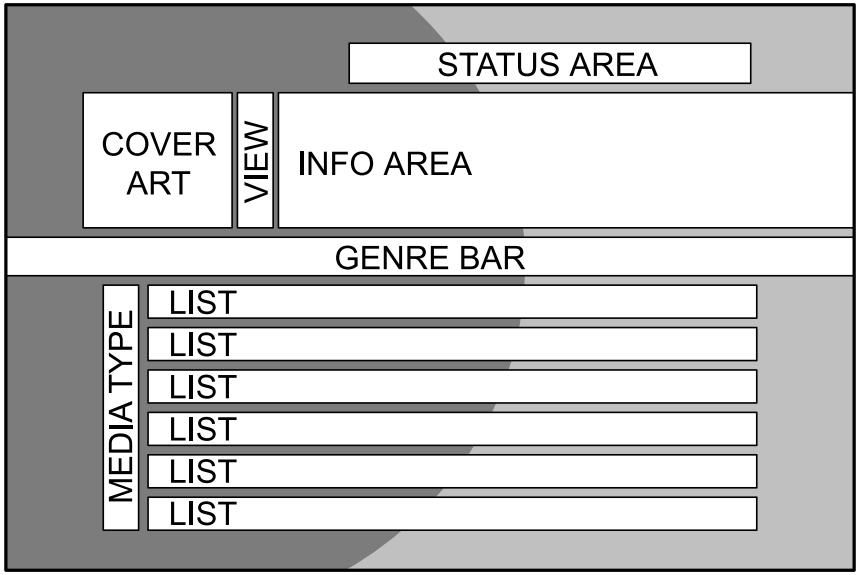
1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the NETWORK menu.**
3. **Select the SERVER CONNECTION menu.**
4. **Select the name of the FireBall server you want to connect to.**
5. **Select the SAVE button to save your selection.**



The Music Guide will appear and display the music content from your FireBall server's internal hard drive. You can now access all of the music from your FireBall server remotely using the FireBall MP-150.

BROWSING YOUR MUSIC LIBRARY

Now that you are connected to your FireBall Music Server, it's time to enjoy all your Music from more than one room. The **Music Guide** allows you to browse, locate, and play all of your music in one easy to use on-screen guide.



The **Music Guide** in FireBall MP is the same as the Music Guide in your FireBall Music Server. It displays a scrolling list of all your Music Titles. Using the remote control, you can navigate up and down the list. As each Title is highlighted, you will notice that the Information Area and Cover Art changes to reflect the currently highlighted Title.

SHOW AND HIDE TRACKS

If you press the SELECT key on the remote control, you will expand the current Title to reveal a list of the Title's **Tracks**.

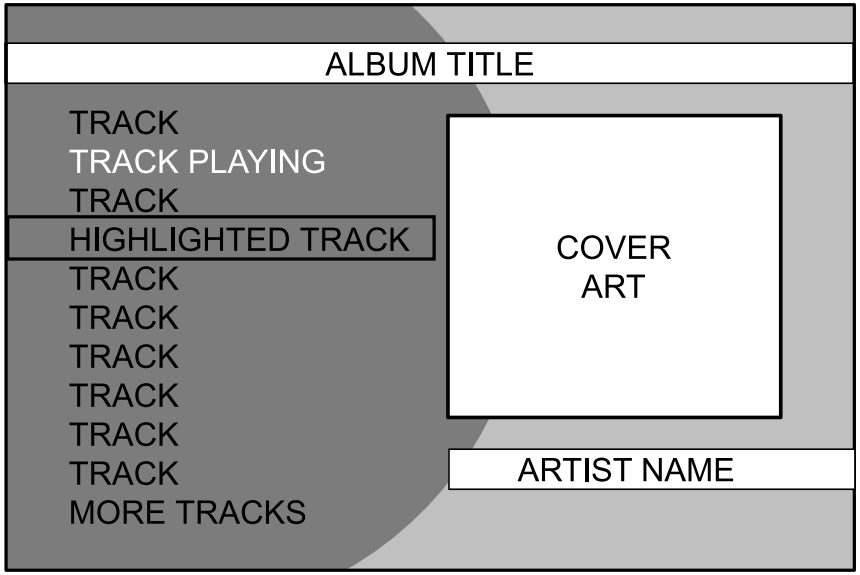
Press the **SELECT** key again (when a Title is highlighted) to collapse the current Title and hide the track names.

PLAYING THE CURRENT TITLE

Playing the currently highlighted Title is the same as playing a CD in a conventional CD player. Simply **press the PLAY key** on the remote control and it begins to play from track 1.

Note: If you press SELECT with a Track highlighted, you will start playback from the selected Track.

You'll notice that a new screen appears with a list of the songs (or tracks) on the current Title, this is the **Music Player** screen. The Music Player displays the artist name, album name, album cover art, and track list for the current Title.



SELECTING A DIFFERENT SONG

In the Music Player you can navigate up and down the track list using the remote control. Highlight a different song and press **SELECT** to play the song.

CHANGING THE GUIDE VIEW

The GUIDE button on the remote control is used to switch between the Music Guide and Music Player screens. When you are viewing the Music Player screen, press the GUIDE button to return to the Music Guide.

The Music Guide provides you with several ways to view the contents of your Music Library. One of the easiest ways to browse and sort your Music Library is by using the Music **"Views"**. There are four Views that you can switch between using the "MENU/ VIEW" key on the remote control:

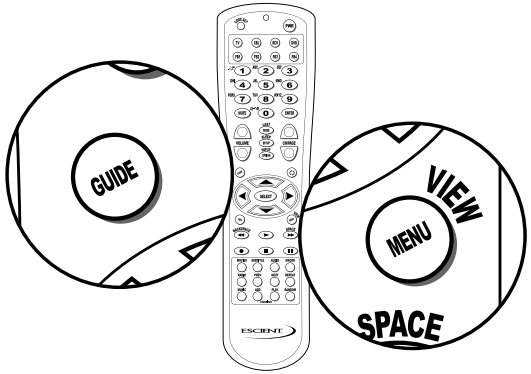
- View By Artist
- View By Title
- View By Song
- View By Cover

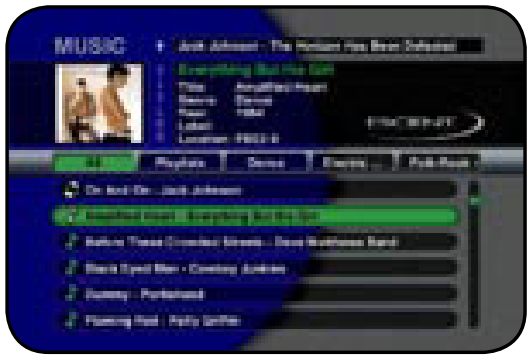
View By Artist

View By Artist is the default View and displays your Music Library alphabetically from A to Z using according to the Artist Name then the Album Name.

View By Title

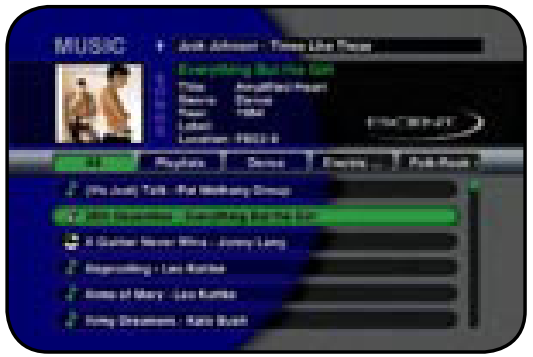
View By Title will order the list of Titles alphabetically from A to Z, according to the Album Name then the Artist Name.





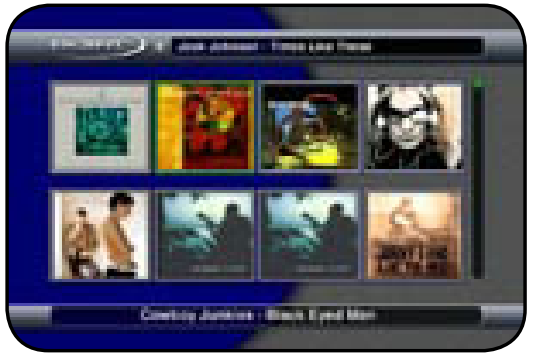
View By Song

View By Song will order the list of Titles alphabetically from A to Z, according to the Song Name.



View By Cover

View By Cover displays a graphical 4x2 grid of album cover art, sorted alphabetically from A to Z, according to the Artist Name then Album Name.



CHANGING THE CURRENT PLAY MODE

The default Play Mode will play the current Title from Track 1 to the last track in order, then stop. If you want to change the order of how tracks are played, there are six different Play Modes to choose from:

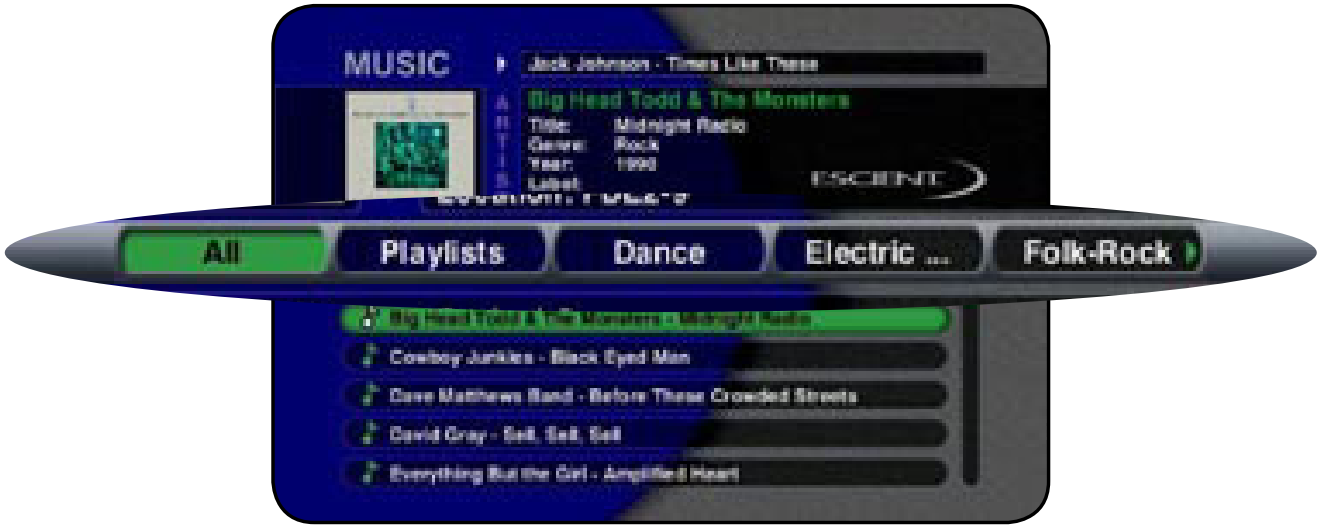
- **Normal -** play each track in order in the current Title, then stop.
- **Repeat Track -** repeat the same track over and over until you press stop.
- **Repeat Title -** play each track in the current Title in order then repeat the entire disc until you press stop.
- **Repeat Group -** play each track in each title in the current group and then repeat them until you press stop.
- **Random Title -** randomly select and play a track from within the current title. Continue until you press stop or every track in the current title is played.
- **Random Group -** randomly select and play a track from any title in the current group. Continue until you press stop or every track in the current group is played

To change the current Play Mode, press the MODE key on the remote control. Each press of the MODE key will switch to the next Play Mode. Stop pressing the MODE key when you see the desired Play Mode appear on the screen. You can also directly select a Play Mode using the OPTIONS key and the Play Mode menu item.

VIEWING BY GENRE

In addition to the current Guide View, the Music Guide automatically organizes your Music into default “Genres” also called “Groups”. The Group Bar displays a horizontal scrolling list of Genres corresponding to the music in your library. Five Genres or Groups are visible at one time. The “All” genre is the default, which displays all Titles in your Music Library.

Using the **LEFT** and **RIGHT** arrow keys on the remote, you can select a different Genre. Notice that the list of Titles updates to show only Titles in the selected Genre.



- Scroll all the way to the left to return to the All Genre.
- Genre list will scroll to the right to reveal more Genres.
- Refer to the section “Managing Your Media” for instructions on creating your own Genres to create custom groupings of your favorite music titles

LISTENING TO INTERNET RADIO

BROWSING INTERNET RADIO STATIONS

The **Radio Guide** displays a scrolling list of Internet Radio Stations. Using the remote control, you can navigate up and down the list. As each Station is highlighted, you will notice that the Information Area and Cover Art changes to reflect the currently highlighted Station.

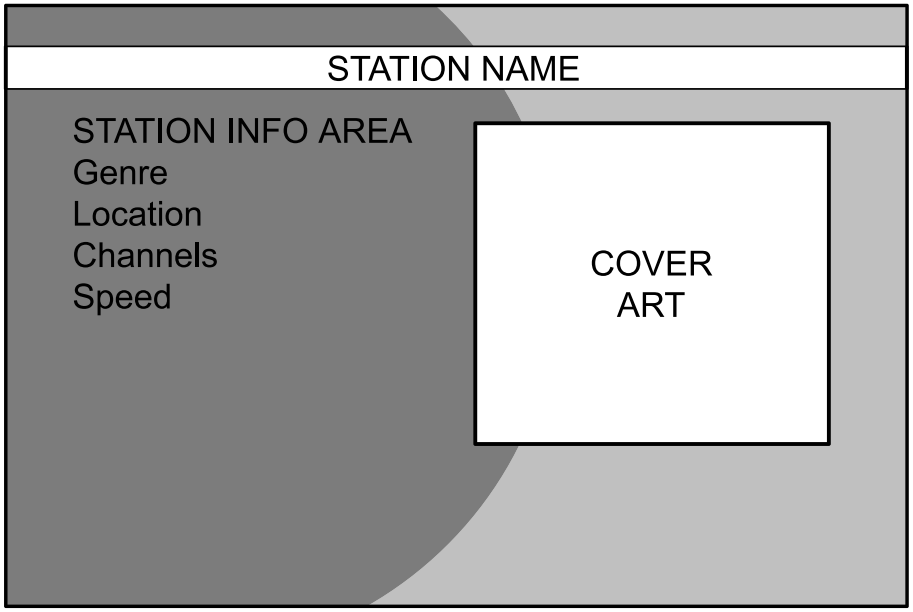
- Press the iRADIO key on the remote control to display the Radio Guide.
- Press the MUSIC key to return to the Music Guide

PLAYING THE CURRENT STATION

Playing the currently highlighted Radio Station is the same as selecting and playing an off air radio station on a typical audio receiver. Simply **press the SELECT key** on the remote control and the currently highlighted station will be located, buffered, and then played.

You'll notice that a new screen appears displaying information about the selected station. This is the **Radio Player** screen. The Radio Player displays the station name, location, genre, genre cover art, and status about the current Internet Radio station stream.

- Playing Internet Radio requires a valid Internet connection.
- Although some stations will work over a Dialup Internet Connection, a broadband Internet connection is recommended.
- Due to the dynamic nature of the Internet, you may experience periodic audio drop-outs which could be due to many factors such as Internet access problems, busy networks, etc...
- Internet Radio Stations are not hosted by Escient and may not be available at all times. You can update your Internet Radio Stations list by running Tune Stations. Please refer to the "Managing Your Media" section for more information.



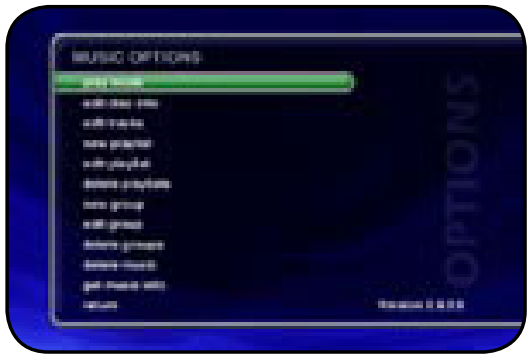
CREATING PLAYLISTS

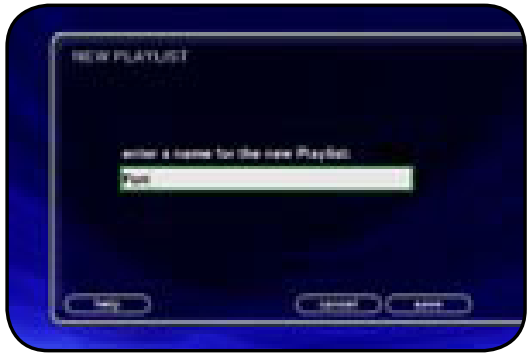
FireBall allows you to organize your favorite songs into custom "Playlists". A Playlist is simply a group of songs that you choose from your Music Library. Common uses for Playlists are:

- Collections of your favorite songs
- Songs that have a similar tempo or feel (mellow mix)
- Custom albums from one or more of your favorite artists
- Party mixes
- Workout mixes

Follow these steps to create your own custom Playlist:

1. **Press the MUSIC key to make sure you are in the Music source mode.**
2. **Press the OPTIONS key to display the Music Options Menu**
3. **Select the NEW PLAYLIST menu item.**
4. **Using the remote control or keyboard, enter a name for your Playlist.**
5. **Select the CONTINUE button on screen to advance to the Edit Playlist Select Guide. The Edit Playlist Select Guide works just like the Music Guide. Navigate up and down to highlight, expand, or collapse music titles.**
6. **For each song you want to add to the Playlist, highlight the song name and press the SELECT key on the remote. A checkmark appears to the right of each selected song indicating that it will be added to the Playlist. Press SELECT again to remove the checkmark.**





7. When you have selected all of the songs you want to include in the playlist, press the RECORD button on the remote control to save the Playlist.

- When you are finished creating your Playlist, the Music Guide is displayed highlighting the newly created Playlist.
- You can play any Playlist the same way you play a music title or CD. Just press the PLAY key on the remote control.
- Notice that a Playlist genre is added to the Group Bar. The Playlist genre will always be available as long as you have at least one playlist in your Music Library.

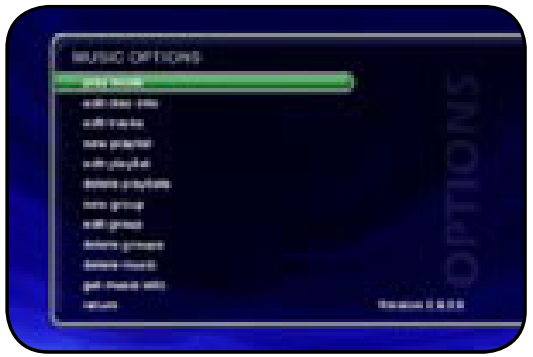
CREATING GROUPS

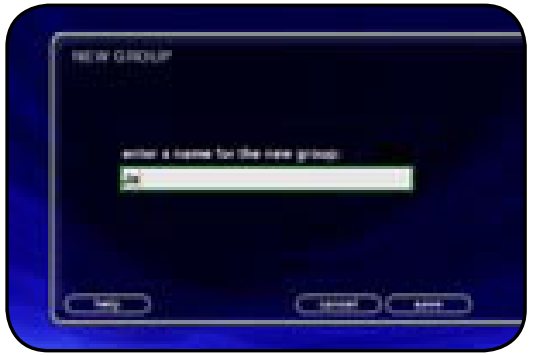
In addition to Playlists, FireBall allows you to create custom "Groups" of, Music Titles or Radio Stations. User created Groups appear in the Group Bar along with the automatically created Genre Groups and System Groups (All, CDs, Internal, and Playlists). Some uses for custom Group are:

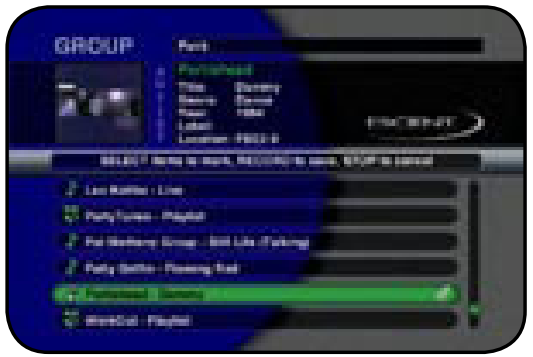
- Create custom groups of your favorite music.
- Organize music titles or radio stations into custom genres, like "Funk", 80's, "Hits', etc…
- Group all of the albums for a favorite artists together for quick access.
- Create an easily accessible collection of your favorite albums.

To create a custom Group, follow these steps:

1. **Press the MUSIC key to make sure you are in the Music source mode or press the RADIO key if you want to create a custom Radio Group.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the NEW GROUP menu item.**
4. **Using the remote control or keyboard, enter a name for your Group.**
5. **Select the CONTINUE button on screen to advance to the Edit Group Select Guide. The Edit Group Select Guide works just like the Music or Radio Guide.**





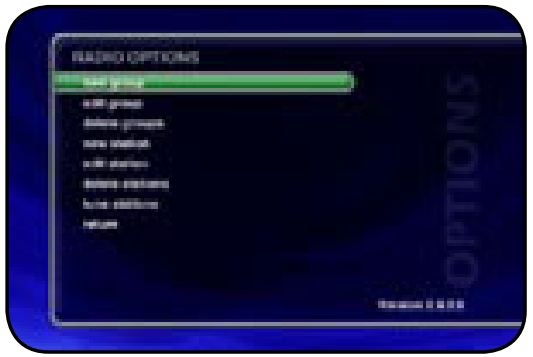


6. **For each Music Title or Radio Station you want to add to the Group, highlight the Title or Station name and press the SELECT key on the remote. A checkmark appears to the right of each selected Title or Station indicating that it will be added to the Group. Press SELECT again to remove the checkmark.**
7. **When you have selected all of the Titles or Stations you want to include in the group, press the RECORD button on the remote control to save the Group.**

- When you are finished creating your Group, the Guide is displayed highlighting the newly created Group.
- Notice that a custom Group is added to the Group Bar along with the System Groups.
- The custom Group will always be sorted alphabetically within the Group Bar and appear to the right of the All and Playlist Groups.

ADDING INTERNET RADIO STATIONS

FireBall comes preloaded with several high quality streaming Internet Radio Stations from around the world, but that may not be enough for you, so FireBall also let's you add your own Internet Radio Stations.



Internet Radio stations must conform to these specifications:

- Windows Media WMA streams only. (MPEG, RealAudio, and other's won't work)
- Windows Media 9 or earlier.

To add your own Internet Radio Stations, you will need to obtain the URL or Internet Link to the stream using your PC and Microsoft's Windows Media Player. Please refer to the Microsoft web site for information on WMA and Windows Media Player.

Assuming you have a valid URL for a station, follow these steps to add your own Internet Radio Station to the Radio Guide:

1. **Make sure you are in the Radio source mode by pressing the RADIO key on the remote.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the NEW STATION menu item.**
4. **Using the remote or keyboard, enter information for the new station including: station name, location, URL, the bit rate of the stream, the genre, and the number of channels (mono or stereo). The cover art will be set according to which genre you select.**
5. **Select the SAVE button to save the new station.**

- When you are finished creating your new station, the Radio Guide is displayed highlighting the newly created Station.
- You can play the station just like any other Internet Radio station.

UPDATING THE INTERNET RADIO STATIONS LIST

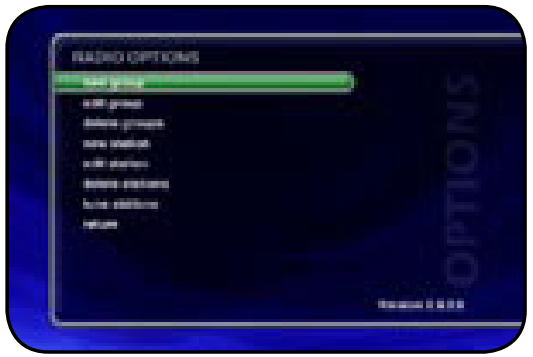
Escient makes every attempt to insure that the preloaded Internet Radio Stations are alive and well, but due to the dynamic nature of the Internet and the third parties who actually serve up these radio streams, sometimes you will not be able to play a station. The “Tune Stations” feature allows you to download a list of the most recent Internet Radio stations from Escient.

Note: Tune Stations WILL NOT erase any custom stations you may have added, from your Radio Guide. It WILL replace the Escient supplied stations with a fresh new list.

If you want to replace the current Internet Radio Stations with a new list of stations, follow these steps:

1. **Make sure you are in the Radio source mode by pressing the RADIO key on the remote.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the TUNE STATIONS menu item.**
4. **Read the WARNING screen and select OK to proceed.**
5. **FireBall will Connect to the Escient server and download the latest Internet Radio Stations.**

When you are finished Tuning the Stations, the Radio Guide is displayed showing the new Escient provided Internet Radio Stations and any user added stations.



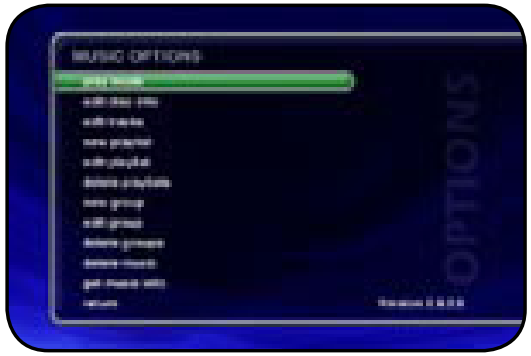
EDITING MUSIC INFORMATION

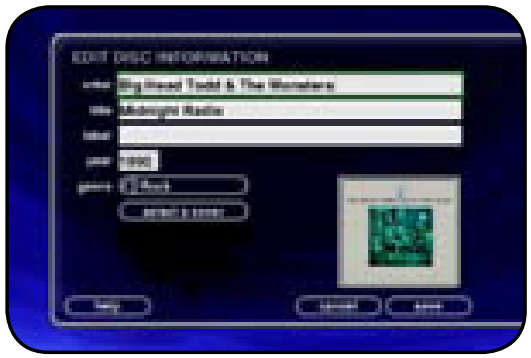
FireBall has access to over 2.5 million CD titles, but you may still encounter a CD that does not return a custom cover or the correct disc information. You can edit the disc information for any Music Title using the Edit Disc and Edit Tracks screens.

Editing Disc Info

Follow these steps to edit the disc information for the current Music Title:

1. **Highlight the Music Title you want to edit in the Music Guide.**
2. **Press the OPTIONS key on the remote control.**
3. **Select the EDIT DISC menu item to display the Edit Disc Information screen.**
4. **Using the remote control or wireless keyboard, change the artist name, album title, label, year of release, or genre.**
5. **Select the SAVE button to save your changes and return to the previous screen.**



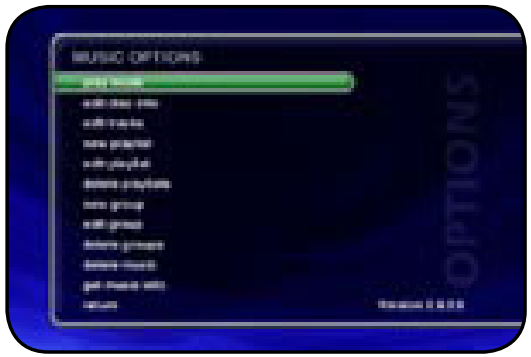


Editing Track Names

You can also manually edit the Track/Song names of the currently highlighted Title in the Music Guide.

Follow these steps to edit the track information for the current Music Title:

1. **Highlight the Music Title you want to edit in the Music Guide.**
2. **Press the OPTIONS key on the remote control.**
3. **Select the EDIT TRACKS menu item to display the Edit Tracks screen.**
4. **Using the remote control or wireless keyboard, change the name of each track.**
5. **Press the SELECT button to advance to the next track.**
6. **Select the SAVE button to save your changes and return to the previous screen.**

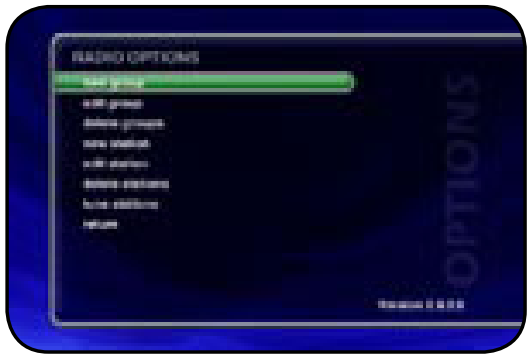


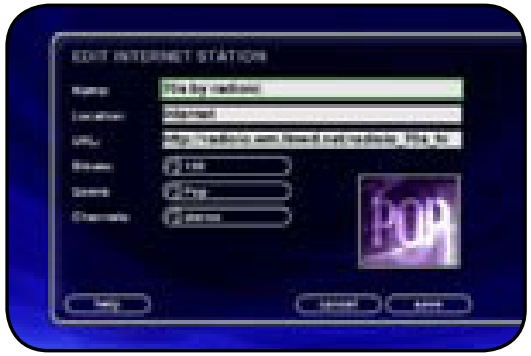
EDITING RADIO INFORMATION

Similar to editing Music Information, you can also Edit the Radio Information.

Follow these steps to edit the station information for the currently highlighted Internet Radio Station:

1. **Make sure you are in the Radio source mode by pressing the RADIO key on the remote.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the EDIT STATION menu item to display the Edit Station screen.**
4. **Using the remote or keyboard, edit the information for the new station including: station name, location, URL, the bit rate of the stream, the genre, and the number of channels (mono or stereo). The cover art will be set according to which genre you select.**
5. **Select the SAVE button to save the changes.**





EDITING PLAYLISTS

You can change the name and add or remove tracks from any Playlist you created.

Follow these steps to edit a Playlist:

1. **Press the MUSIC key to make sure you are in the Music source mode.**
2. **Highlight the Playlist Name you want to edit. Note: The Playlist group will list all of your Playlists.**
3. **Press the OPTIONS key to display the Music Options Menu**
4. **Select the Edit Playlist menu item.**
5. **Using the remote control or keyboard, change the name of your Playlist or select the CONTINUE button on screen to keep the current name and advance to the Edit Playlist Select Guide.**
6. **For each song you want to add to the Playlist, highlight the song name and press the SELECT key on the remote. A checkmark appears to the right of each selected song indicating that it will be added to the Playlist.**
7. **For each song you want to remove from the Playlist, highlight the song name and press the SELECT key on the remote. The checkmark to the right of the song will be removed, indicating that the song should be removed from the Playlist.**
8. **When you have added or removed all of the songs you want to include in the playlist, press the RECORD button on the remote control to save the Playlist.**

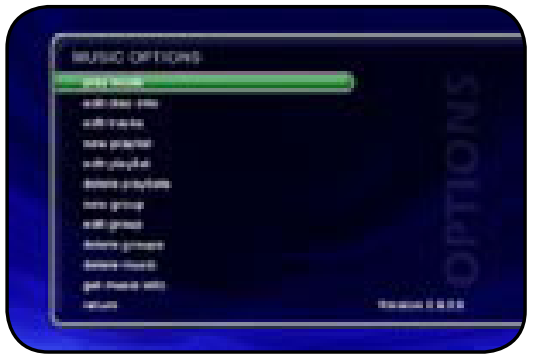
- If you remove all songs from a Playlist, the Playlist is automatically deleted.
- You can not reorder songs within a current Playlist.

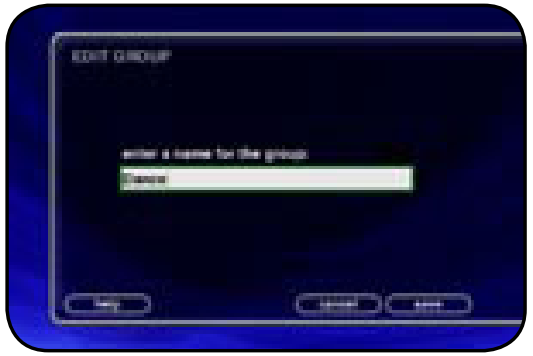
EDITING GROUPS

As with Playlists, you can also edit the name of a Group, add Music Titles or Radio Stations to the Group, or remove Music Titles or Radio Stations from the Group.

Follow these steps to edit a Group:

1. **Press the MUSIC key if you want to edit the Music Groups or press the RADIO key if you want to edit the Radio Groups.**
2. **Highlight the Group you want to edit within the Group Bar.**
3. **Press the OPTIONS key to display the Music Options Menu**
4. **Select the Edit Group menu item.**
5. **Using the remote control or keyboard, change the name of your Group or select the CONTINUE button on screen to keep the current name and advance to the Edit Group Select Guide.**
6. **For each Music Title or Radio Station you want to add to the Group, highlight the Music Title or Radio Station and press the SELECT key on the remote. A checkmark appears to the right of each selected Music Title or Radio Station indicating that it will be added to the Group.**
7. **For each Music Title or Radio Station you want to remove from the Group, highlight the Music Title or Radio Station and press the SELECT key on the remote. The checkmark to the right of the Music Title or Radio Station will be removed, indicating that the Music Title or Radio Station should be removed from the Group.**





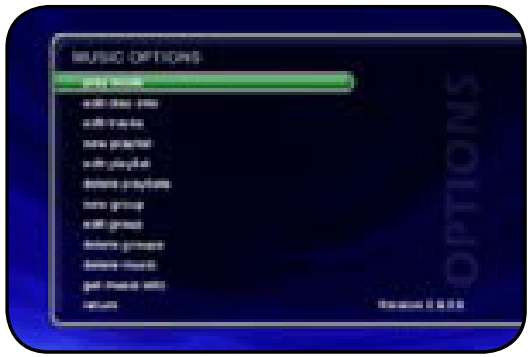
8. When you have added or removed all of the Music Titles or Radio Stations you want to include in the playlist, press the RECORD button on the remote control to save the Group.

You can not edit the System Groups (All, CDs, Internal, or Playlists).

- If you remove all Titles or Stations from a Group, the Group is automatically deleted.
- You can not reorder Titles and Stations within a Group. They are always sorted alphabetically.

DELETING MUSIC

You can remove any music you have recorded to the FireBall Server by using the Delete Music feature. You may want to do this if you have filled up your FireBall Server and you can not record any more music or if you want to remove songs that you just don't listen to.



Follow these steps to delete music from your FireBall:

1. **Press the MUSIC key to make sure you are in the Music source mode.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the DELETE MUSIC menu item to display the Delete Music Info screen.**
4. **Press the CONTINUE button to proceed to the Delete Music Guide.**
5. **For each Track you want to delete, highlight the Track and press the SELECT key on the remote. A checkmark appears to the right of each selected Track indicating that it will be deleted. Press the SELECT key again to remove the checkmark. Pressing the TOGGLE key on the remote when a Title is highlighted will toggle all or none of the Title's tracks for deletion.**
6. **When you have selected all of the Titles you want to delete in the group, press the RECORD button on the remote control to permanently remove and delete the checked tracks.**

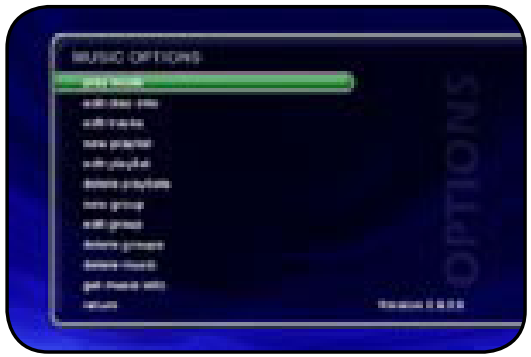
Note: Since the MP-150 does not have it's own media storage, all music is deleted from the server. Take care when using this function because once your music is deleted, there is no way to recover it other than restoring from a backup copy.

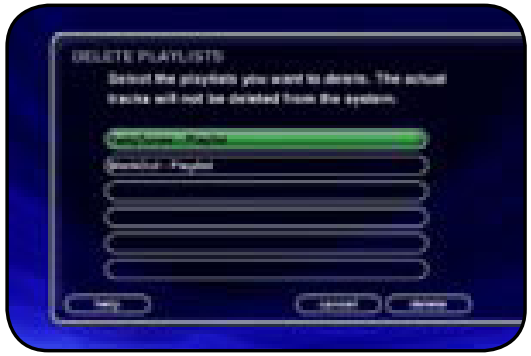
DELETING PLAYLISTS

You may delete entire Playlists from the Music Guide. Follow these steps to permanently delete one or more Playlists from the Music Guide:

1. **Press the MUSIC key to make sure you are in the Music source mode.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the DELETE PLAYLISTS menu item to display the Delete Playlists screen.**
4. **For each Playlist you want to delete, highlight the Playlist and press the SELECT key on the remote. A checkmark appears to the right of each selected Playlist indicating that it will be deleted. Press the SELECT key again to remove the checkmark.**
5. **When you have selected all of the Playlists you want to delete, select the DELETE button to permanently remove and delete the checked Playlists.**

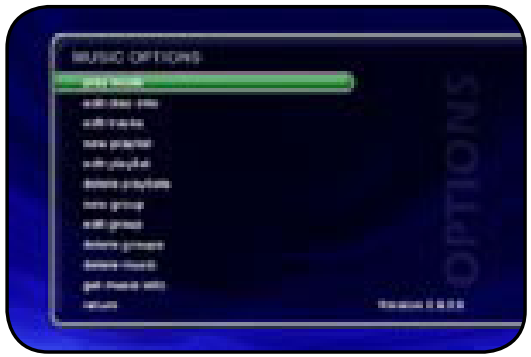
Note: All Playlists are stored on the server and therefore you are deleting playlists from the server even though you are editing on an MP.

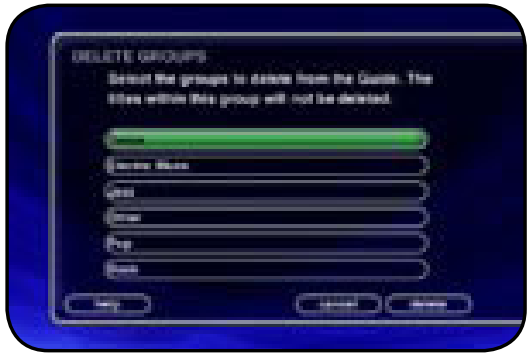




DELETING GROUPS

Deleting Groups from the Group Bar is very similar to deleting Playlists. The contents of the Group (the Music Titles or Radio Stations) are not deleted. They are still available in any other Groups they may be assigned to and in the All Group.





Follow these steps to delete Groups.

1. **Press the MUSIC key if you want to edit the Music Groups or press the RADIO key if you want to edit the Radio Groups.**
2. **Press the OPTIONS key to display the Options Menu**
3. **Select the DELETE GROUPS menu item to display the Delete Playlists screen.**
4. **For each Playlist you want to delete, highlight the Playlist and press the SELECT key on the remote. A checkmark appears to the right of each selected Playlist indicating that it will be deleted. Press the SELECT key again to remove the checkmark.**
5. **When you have selected all of the Playlists you want to delete, select the delete button to permanently remove and delete the checked Playlists.**
6. **You can not delete the System Groups (All, CDs, Internal, or Playlists).**

Note: All Groups are stored on the server and therefore you are deleting groups from the server even though you are editing on an MP.

SETTING USER PREFERENCES

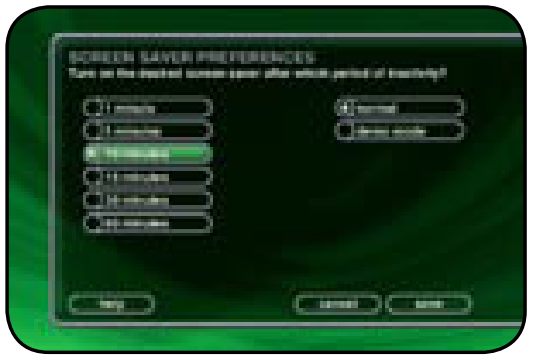
User preferences are available to specify global configuration options and preferred system settings. Press the SETUP key on the remote control to display the Setup Menu. Use the navigation keys on the remote control (up, down, left, and right) to highlight and select any menu item.

SETTING THE SCREEN SAVER PREFERENCES

Screen Savers are provided for each source mode. Screen Savers provide two important functions, to prevent a static image from being displayed on the video output device for extended periods of time and to provide useful information to the user when activated.

Follow these steps to set your screen saver preferences:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the GENERAL Menu**
3. **Select the SCREEN SAVER Menu**
4. **Select your Screen Saver Preferences**



Activation Idle Time

You can specify the amount of idle time that FireBall will wait before activating the screen saver from 1 to 60 minutes.

Warning: Some televisions and plasma monitors are more susceptible to screen burn-in than others, therefore, we recommend using a low activation time (like 1 minute) to reduce the risk of burn-in.

Mode

Select either the Normal mode or Product Demonstration mode. The Normal mode displays the current title or station information while the Product Demonstration mode is intended for retail product demos during idle time.

SETTING YOUR TIME ZONE

Specify which US time zone your FireBall is located in.

Follow these steps to set your Time Zone:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the GENERAL Menu**
3. **Select the TIME ZONE Menu**
4. **Select your select your Time Zone.**

SETTING YOUR ZIP CODE

Select US Zip Code or Canadian Postal Code. Your Zip Code or Postal Code is used to tell the Automatic Update Manager when to connect to Escient for product updates.

Follow these steps to set your Zip Cod:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the GENERAL Menu**
3. **Select the ZIP CODE Menu**
4. **Enter your Zip or Postal Code.**

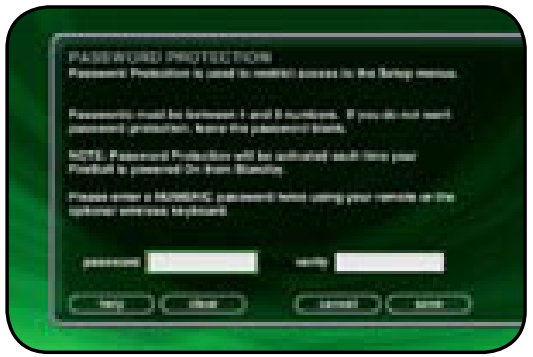
ENABLING PASSWORD PROTECTION

Optional Password Protection enables you to limit user access to the Setup Menus. This is useful to lockout the ability to change the global user settings and preferences.

Setting a System Password – Follow these steps to setup a new system password:

1. **Using the remote control, enter a 4 to 8 digit code into the password field.**
2. **Press the SELECT key to highlight the VERIFY field.**
3. **Re-enter the same password for verification.**
4. **Press the SELECT key to highlight the SAVE button.**
5. **Press SELECT again to save your password and enable Password Protection on the Setup Menus.**

- You must exit Setup and re-enter setup to activate the password protection.
- If a user password is specified, you will be prompted for your password whenever you press the Setup key on the remote.
- If the password entered matches the stored password, full access is granted to the user until the next power off cycle.
- If the password does not match, the user will be asked 2 more times to enter the correct password. If after the third try the password still does not match, the system will not allow the user access to the Setup menus.
- If the user does not specify a System Password, access to the Setup menus will be allowed whenever you press the Setup key.



Removing a System Password – Follow these steps to remove the system password:

1. Press the SETUP key and enter your existing system password.
2. Highlight the CLEAR button on screen and press the SELECT key on your remote.
3. The password and verify fields will be cleared.
4. Highlight the SAVE button and press SELECT.

You will now be able to enter Setup without entering a password.

CHOOSING YOUR NETWORK CONNECTION

FireBall supports two networking methods, Ethernet and Dialup Modem. Your FireBall must be connected to the Internet in order to lookup disc information, download software updates, and access Internet Radio.

Note: An external modem is necessary for Dialup access. External modems are available from most computer retail stores or contact your Escient dealer for more details.

If you have a broadband Internet connection such as a cable modem, DSL, or ISDN line, select Ethernet and connect FireBall to your Ethernet network. You may need additional networking hardware(like an Ethernet hub) to join your FireBall to your Ethernet network. See your Escient dealer for more information about home networking.

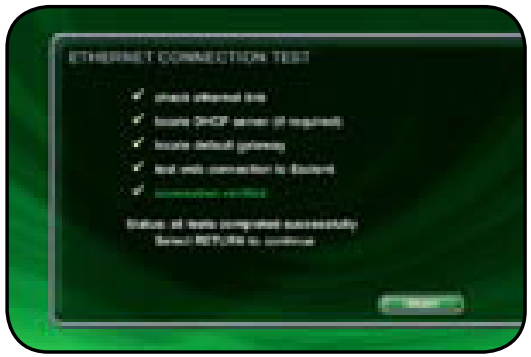
If you have a dialup ISP (Internet Service Provider (such as AOL, Compuserve, Earthlink, MSN etc…) select the Dialup Modem button.

Follow these steps to select your network connection:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the NETWORK Menu**
3. **Select the NETWORK CONNECTIONS Menu**
4. **Select either ethernet or dialup modem.**

Testing the Your Connection

It is a good idea to verify that your selected network connection is functioning properly before exiting the Network Connections screen.



Follow these steps to test your selected network connection:

1. **Select the TEST CONNECTION button on the Network Connections screen.**
2. **Wait for the tests to complete. A check mark next to each test indicates that it passed while an "X" indicates that the test failed.**
3. **Select the RETURN button to return to the previous screen.**

If one or more connection tests receive an X, make sure your cables are properly connected and you have properly setup for Ethernet Settings or Dialup Modem Settings.

Ethernet Settings

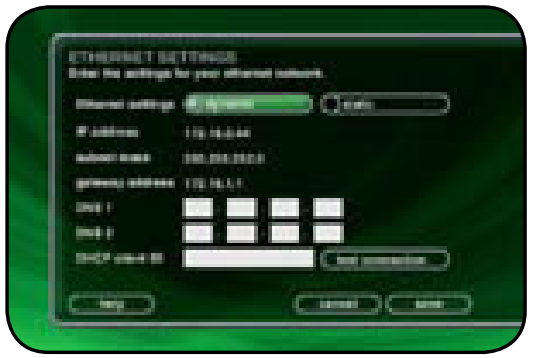
Ethernet is the preferred networking choice which provides you with the best network performance and allows your FireBall to act as a "server" to deliver your music collection throughout your home network using the optional FireBall Music Players.

Ethernet networks require that you configure each device on the network with a valid "address". These addresses are usually configured automatically by your network hardware. If your PC is setup using Dynamic or "DHCP" addressing, you should most likely use the same for your FireBall.

Connect your FireBall to your Ethernet network using the included Ethernet cable and then follow these steps to specify your Ethernet settings:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the NETWORK Menu**
3. **Select the ETHERNET SETTINGS Menu**
4. **Select Dynamic for automatic address configuration or Static if you want to manually enter your TCP/IP address information.**

If you select Static TCP/IP addressing, you will need to obtain a valid IP address, subnet mask, DNS server, and gateway addresses from your network administrator.



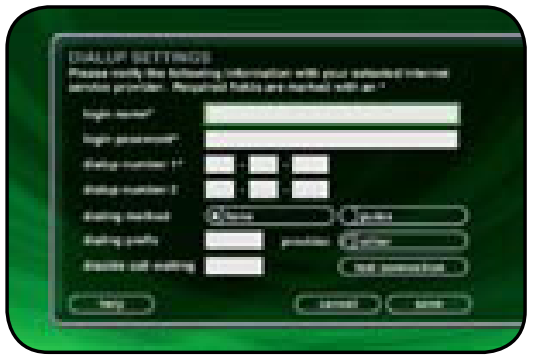
Dialup Settings

If you are going to use a dialup ISP to connect your FireBall to the Internet, you must provide information for your selected ISP. This information can be obtained by contacting your ISP or from your PC, if you already use it to connect to the Internet.

Connect you phone line to a Hayes compatible modem and connect the modem to COM PORT 4 on the back of your FireBall, then follow these steps to specify your Dialup Modem settings:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the NETWORK Menu**
3. **Select the DIALUP SETTINGS Menu**
4. **Enter your login or user name.**
5. **Enter your password.**
6. **Enter 1 or 2 dialup access numbers obtained from your ISP.**
7. **Select your dialing method: Tone or Pulse.**
8. **Enter any required dialing prefixes you may need for your phone system such as '9' to get an outside line.**
9. **If you have Call Waiting service on your phone line, you should enter "*70," (or any other code) to temporarily disable it while using FireBall. This prevents a Call Waiting call from interrupting any FireBall Internet functions that may be in progress, such as updating.**
10. **Finally select which Provider you are using: AOL, CompuServe or Other.**

If you want to test the dialup modem connection, select the **TEST CONNECTION** button to run the test as described above.



SETTING THE FIREBALL SERVER SETTINGS

Your FireBall can act as a "server" delivering audio to optional remote FireBall MP "clients". FireBall's server also allows you to control it remotely using a web browser on your PC and allows Network File Sharing for backup and import features. The FireBall Name allows you to easily locate and connect to your FireBall by name.

Follow these steps to enter a name for your FireBall:

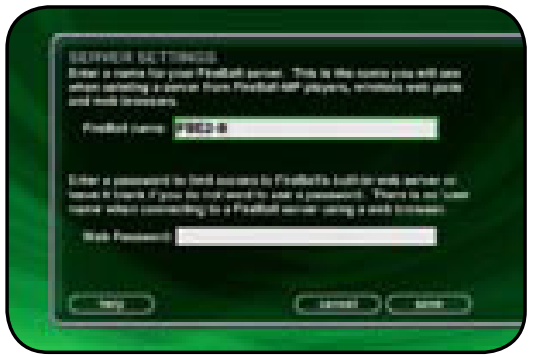
1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the NETWORK menu.**
3. **Select the FIREBALL SERVER SETTINGS menu.**
4. **Enter a name for your FireBall using the remote control or wireless keyboard. For example: "Living Room" or "Home Theater" might be a name which helps identify which FireBall you want to connect to.**

Follow these steps to enter a password to be used when connecting to your FireBall from a web browser:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **select the NETWORK menu.**
3. **Select the FIREBALL SERVER SETTINGS menu.**

Enter a password to be used from your PC when connecting from your web browser.

Note: There is no User Name when connecting from a web browser.



VIDEO OUTPUT PREFERENCES

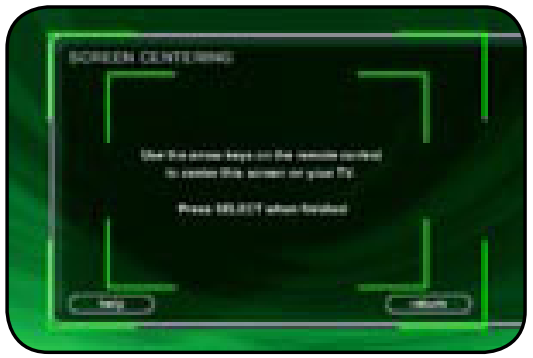
In addition to screen centering capabilities, FireBall provides 4 video test images to assist with obtaining the best possible video display of FireBall on your TV.

Centering the FireBall Screen

Allows you to center the FireBall user interface horizontally on your TV screen.

Follow these steps to center the FireBall screen:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the VIDEO menu.**
3. **Select the SCREEN CENTERING menu.**
4. **Using the Left and Right keys on the remote, adjust the screen so that it appears horizontally centered on your TV.**
5. **Press the SELECT key on the remote to highlight the SAVE button.**
6. **Press SELECT again to save the current position.**



Adjusting your TV's Brightness

Follow these steps to adjust the brightness on your TV:

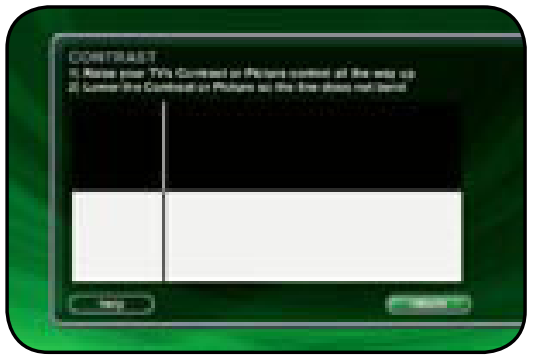
1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the VIDEO menu.**
3. **Select the BRIGHTNESS menu.**
4. **Turn your TV's brightness control all the way up then lower it to the point where the vertical black bar on the left just disappears. This will get your brightness control as close to the proper setting as possible without the use of special software and hardware.**
5. **Press SELECT to return to the previous menu.**

Adjusting your TV's Contrast

The Contrast or Picture Adjustment control allows you to optimize the contrast (which is sometimes called Picture) of their TV, using the TV's Contrast or Picture controls. This setting helps reduce video "blooming" and create a clearer, more readable user interface.

Follow these steps to adjust the contrast on your TV:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the VIDEO menu.**
3. **Select the CONTRAST menu.**
4. **Turn your TV's Contrast or Picture control all the way up, then lower it to the point where the vertical line appears straight and does not bend. It may not be possible to make it completely straight on some TV sets. This will get your Contrast control as close to the proper setting as possible without the use of special software and hardware.**
5. **Press SELECT to return to the previous menu**

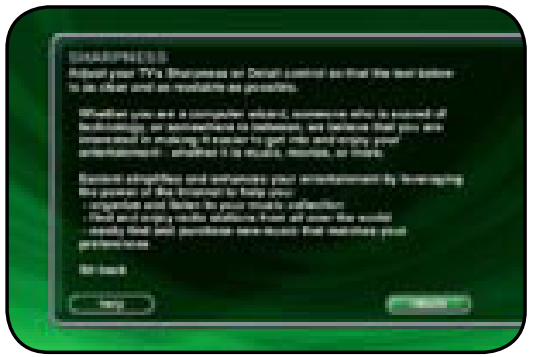


Adjusting your TV's Sharpness

The Sharpness adjustment allows you the set the Sharpness or Detail control of their TV so that onscreen text is as readable as possible. Proper adjustment of the Sharpness control (sometimes called the Detail control) on your TV, allows you to see video and on screen menus more accurately.

Follow these steps to adjust the sharpness on your TV:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the VIDEO menu.**
3. **Select the SHARPNESS menu.**
4. **Turn your TV's Sharpness or Detail control up and down until the text on the screen is as readable as possible. Be sure to adjust your Brightness and Contrast before adjusting the Sharpness control. This will get your Sharpness control as close to the proper setting as possible without the use of special software and hardware.**
5. **Press SELECT to return to the previous menu**

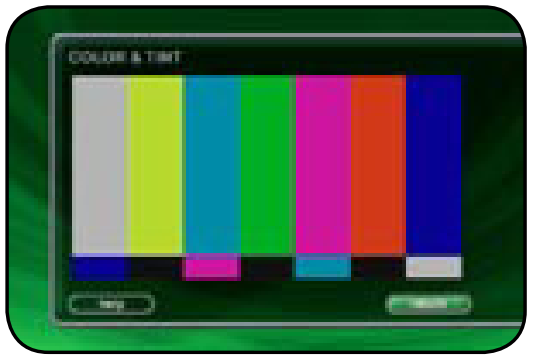


Adjusting your TV's Color and Tint

Color Bars are used to test the TV monitor's ability to reproduce the proper color values.

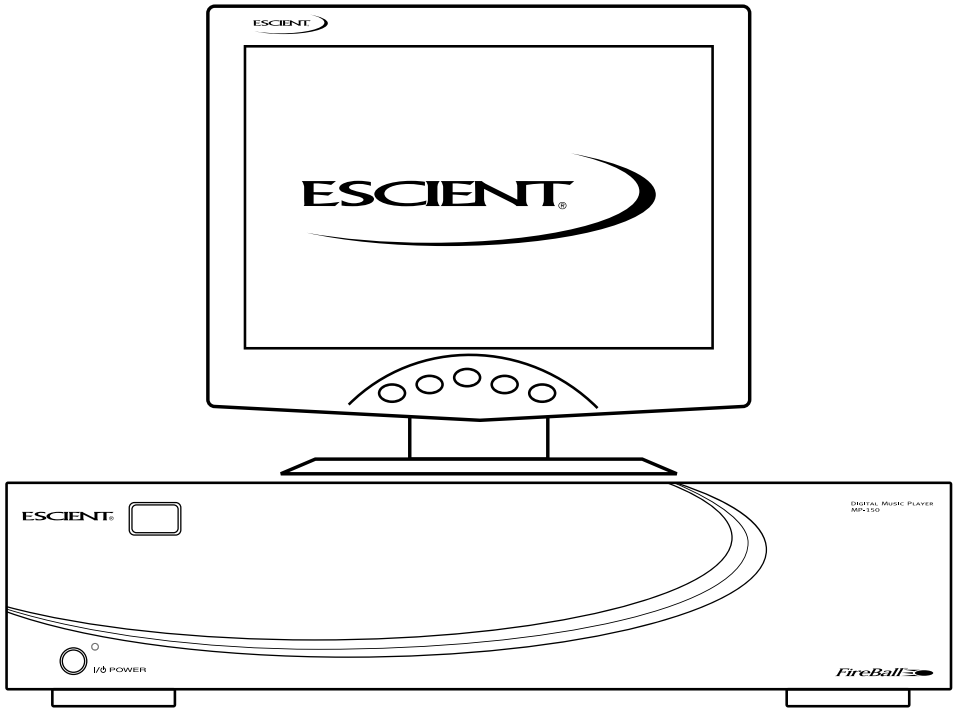
Follow these steps to adjust the Color and Tint on your TV:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the VIDEO menu.**
3. **Select the COLOR BARS menu.**
4. **Turn your TV's Color and Tint controls up and down until the color bars are at the point where they are not appearing to bleed together and the colors do not appear to be too bright. This will get your Color and Tint controls as close as possible without the use of special software and hardware.**
5. **Press SELECT to return to the previous menu**



CONTROLLING FIREBALL FROM AN ESCIENT TOUCH PANEL

If you have purchased the optional Escient ETP-1500 touch panel from your Escient dealer, this section will show you how to connect, configure, and use your ETP-1500 with the FireBall MP-150.



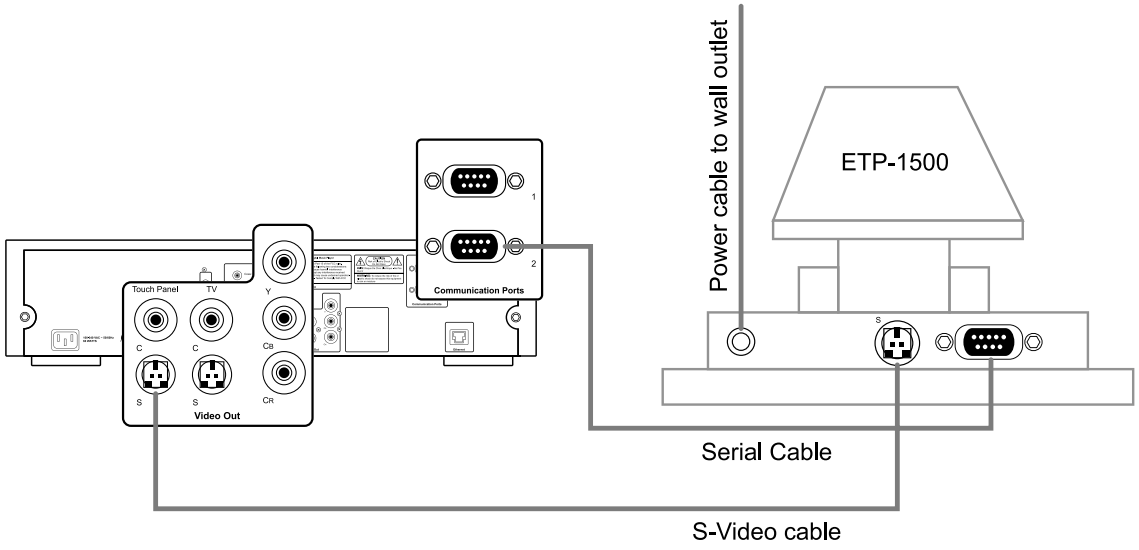
Connecting Your Touch Panel

The ETP-1500 touch panel communicates with FireBall using a serial connection. You should use COM port 2 for the Touch Panel.

Follow these steps to connect the ETP-1500 to your FireBall:

1. **Put your FireBall into Standby mode by pressing the POWER button on the front panel until the front panel display is off.**
2. **Connect your ETP-1500 to COM port 2 on the back of FireBall using the supplied serial cable.**
3. **Connect the supplied S-Video cable from one of FireBall's S-Video output jacks to the S-Video input on bottom edge the ETP-1500 screen.**
4. **Connect the supplied power cable from the ETP-1500 to an AC outlet.**
5. **Power on your FireBall using the front panel POWER button.**

FireBall will automatically recognize that an ETP-1500 is connected to COM port 2 and display the Touch Panel Overlay buttons around the perimeter of the screen.



Calibrating Your Touch Panel

Before you can use your ETP-1500, the touch points of the screen must be calibrated.

Follow these steps to calibrate your ETP-1500 Touch Panel:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the EXTERNAL CONTROL menu.**
3. **Select the CALIBRATE TOUCH PANEL menu.**
4. **Using your finger, touch the circular target on the ETP-1500. When the touch panel is calibrated, the SAVE button is highlighted.**
5. **Touch the SAVE button to save the current calibration settings and return to the previous screen.**

Using Your Touch Panel

The Touch Panel Overlay should now be displayed around the edges of your screen. These buttons duplicate the functions found on the remote control and allow you to interact and control FireBall by touching each button on the ETP-1500.

CONTROLLING FIREBALL FROM OTHER DEVICES

In addition to the Escient ETP-1500 wired touch panel, FireBall provides the user and custom A/V installer with many options for control and integration into any home theater or home automation system using direct IR codes, two-way RS-232 serial control, two-way Ethernet control, and wireless web pad control.

FireBall has built-in support for the following companies' control products:

- **AMX**
- **Crestron**
- **Elan Via**
- **Home Theater Master**
- **Lexicon**
- **Marantz**
- **Net Streams**
- **Opus**
- **Phillips Pronto**
- **RTI**
- **Sonance**
- **Xantech**

Please check the Escient web site or contact your Escient dealer for more information about integrating FireBall into your existing or new home theater or home automation system.

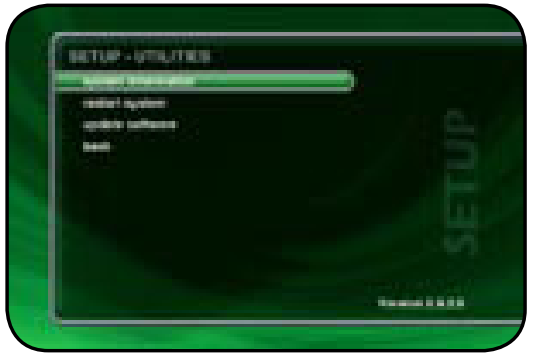
FIREBALL UTILITIES

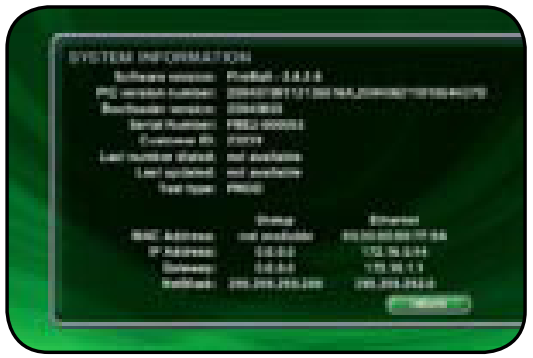
Getting Information about Your FireBall

Information about your FireBall hardware and software is available under the Utilities menu. This information is useful for troubleshooting any problems you may encounter with your network connection or verifying the current software versions.

Follow these steps to view the FireBall system information:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the UTILITIES menu.**
3. **Select the SYSTEM INFORMATION menu.**





Restarting the System

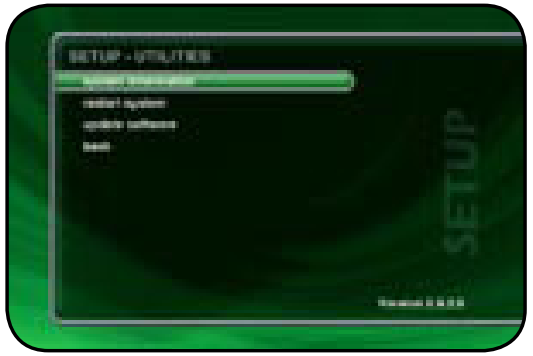
There are two ways of manually performing a full restart or reboot of the FireBall system, one using the front panel power button and the other using the Restart System menu.

Follow these steps to restart the system using the front panel Power Button:

1. **Press and hold the power button for 4 seconds.**
2. **When the LED on the front panel begins to flash, release the power button.**
3. **When the LED on the front panel glows solid RED (standby mode), FireBall is ready to use.**
4. **Press and release the Power button to turn on FireBall.**

Follow these steps to restart the system using Utilities menu:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the UTILITIES menu.**
3. **Select the RESTART SYSTEM menu.**
4. **Confirm that you want to restart the system and select the RESTART button.**
5. **When the LED on the front panel glows solid RED (standby mode), FireBall is ready to use.**
6. **Press and release the Power button to turn on FireBall.**

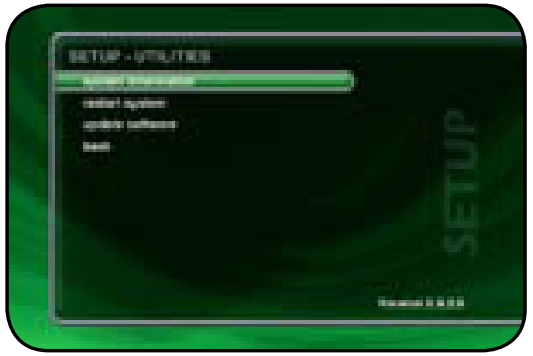


Updating the Software

FireBall will automatically check the Escient server once a week for any FireBall software updates, and automatically install them. You can also manually check for a software update.

Follow these steps to manually update the software:

1. **Press the SETUP key on the remote to display the Setup menu.**
2. **Select the UTILITIES menu.**
3. **Select the UPDATE SOFTWARE menu.**
4. **Confirm that you want to update the current software.**
5. **FireBall will connect to Escient and compare the current software version with the latest release. If a newer version of the FireBall software is available, it will be downloaded and installed.**



CONTROLLING FIREBALL FROM A WEB BROWSER

FireBall contains a built-in web server which means you can connect to your FireBall and remotely control it using a standard web browser over your home network.

SETTING UP THE FIREBALL WEB SERVER

Your FireBall acts as a web server on your network allowing you to connect and control the FireBall using your PC or Mac computer. This web server is automatically configured and started each time the FireBall is plugged in. You connect to the server from your PC or Mac using Internet Explorer or Safari (Mac OS X) using TCP/IP addressing over your home network. You can use a wireless or wired Ethernet network, as long as you have a DHCP router or if you have assigned static IP addresses. Please contact your Escient dealer if you need assistance with setup a home network.

The FireBall Server Name entered on the Server Settings Menu in the SETUP/NETWORK menus is used for the web address to access the FireBall web interface.

CONNECTING TO YOUR FIREBALL USING A WEB BROWSER

Note: Any standard web browser which supports HTML 4.0 standards should work, however Escient officially supports Inernet Explorer on Windows XP and Safari on Mac OS X.

Follow these steps to connect to your FireBall using your Windows XP or Mac OS X computer:

1. **Launch Internet Explorer or Safari on your computer.**
2. **Enter the FireBall Server Name or IP Address into the browser just as if you were entering a web address to connect to a web site.**
3. **Your browser should connect to your FireBall and display the FireBall HTML interface.**

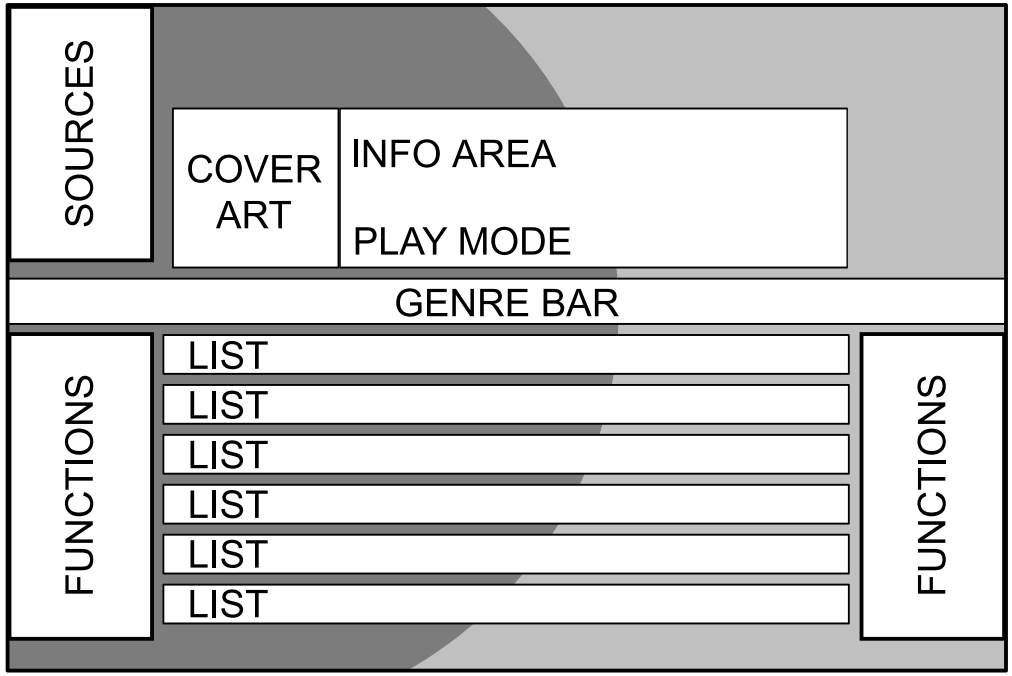
USING THE WEB USER INTERFACE

Using the Web User Interface displayed in your Web Browser, you can control almost every aspect of your FireBall. The Web User Interface is setup very similarly to FireBall's own TV user interface allowing access to each source (Music and Radio) as well as all major features such as Setup, Guide/Player, Options and Edit Screens.

Use your keyboard and mouse to navigate the web interface instead of the IR remote control. Access to all of the major functions is provided by the buttons along the left and right side of the web interface. These buttons duplicate those found on the remote control.

USING THE WEB BROWSER AS A MUSIC CLIENT

In addition to remotely controlling your FireBall, the built-in web server also functions as a streaming MP3 music files to the web browser, providing an easy way to add multiple streaming music clients to your FireBall.



Note: Your web browser and computer must be setup to properly handle streaming .mp3 files. The proper configuration of these settings is beyond the scope of this document. Please consult with your computer manufacturer or other online support sources for more information about playing MP3 files on your computer.

Follow these steps to configure the FireBall web interface client mode to either streaming from or remote controlling your FireBall:

1. **Make sure your web browser is properly configured and connected to your FireBall.**
2. **Click the SETUP button on the left side of the screen to display the Setup Menu.**
3. **Click the WEB CLIENT Mode menu item at the top of the page.**
4. **Select STREAMING CLIENT Mode to set the Web Browser as the streaming music client or select SYNCHRONIZED Mode to remotely control your FireBall.**
5. **Click the SAVE button to save your selection and exit the Setup Menu.**

Selecting music from the Web Browser will now cause the music to be played from the computer's own audio system rather then from the FireBall itself.

To set the Web Client Mode back to Remote control, follow these same instructions but select **Synchronized Mode** instead of **Streaming Client Mode**.

ESCIENT PRODUCT SUPPORT

Contact your dealer or Escient's Customer Support group.

Hours: Monday - Friday 9:00am - 7pm EST
Phone: 800-372-4368 Press "2" for Sales, or "3" for Support
Fax: 317-616-6790
Internet: www.escient.com
Email: support@escient.com

Please have the following information ready for the Escient Customer Support technician:

- Product Serial Number
- Model Number
- Date of Registration or Purchase
- Place of Purchase

SPECIFICATIONS

Specifications are subject to change without notice. Please check the Escient web site for any changes to the specifications.

Video Specifications

- NTSC
- 10 bit Video DACs
- Frequency Response:
- Composite: -2 dB @ 5MHz
- S-Video: -2 dB @ 5MHz
- SNR: 50 dB
- Crosstalk: 50 dB
- Input Impedance: 75Ohm
- Output Impedance: 75Ohm

Audio Specifications

- Frequency Response: 2 – 20,000 Hz, ±1 dB
- THD+N (playback) < -80 dB FS A (< 0.01%)
- A_D-DSP-D-A Dynamic Range: > 96 dB FS A @ 1kHz
- Channel Separation: >95 dB
- Full Scale Line Output: >2 Vrms, 50 k ohms
- S/PDIF Output: 0.4Vpp to 0.6Vpp, <0.05Vdc (75ohm terminated)
- Power Requirements: AC 90-132 VAC, 50-60 Hz
- Power Consumption: < 60 watts

Physical Specifications

Width: ~ 17 3/8”
Height: ~ 4 5/8” w/ feet; ~ 4” w/o feet
Depth: ~ 11 7/8”; Installed 14 3/8”

Power Supply Specifcations

- Open frame 80 Watt Supply
- Full Power Off accomplished by removing the power cord from the wall power outlet

3rd Party Certifcations

- FCC: US Part 15, Class B
- NTSC Video Output: NTSC RS-170A
- cETL Listing
- Conforms to: UL STD 6500-2000
- Certified to: CAN/CSA STD E60065-00
- CE

FCC Part 15, Subpart B

Class B

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.
- Shielded cables must be used with this unit to ensure compliance with the Class B FCC limits.

Gracenote® End-User License Agreement

USE OF THIS PRODUCT IMPLIES ACCEPTANCE OF THE TERMS BELOW.

This product contains technology and data from Gracenote of Emeryville, California ("Gracenote"). The technology from Gracenote (the "Gracenote Embedded Software") enables this product to do disc identification and obtain music-related information, including name, artist, track, and title information ("Gracenote Data"), which is included on the Gracenote Database (the "Gracenote Database").

You agree that you will use Gracenote Data, the Gracenote Database, and Embedded Software for your own personal non-commercial use only. You agree that you will access Gracenote Data only by means of the standard end user functions and features of this product. You agree not to assign, copy, transfer or transmit the Embedded Software or any Gracenote Data to any third party. YOU AGREE NOT TO USE OR EXPLOIT GRACENOTE DATA, THE GRACENOTE DATABASE, OR GRACENOTE COMPONENT, EXCEPT AS EXPRESSLY PERMITTED HEREIN.

You agree that your non-exclusive license to use the Gracenote Data, the Gracenote Database, and Embedded Software will terminate if you violate these restrictions. If your license terminates, you agree to cease any and all use of the Gracenote Data, the Gracenote Database, and Gracenote Embedded Software. Gracenote reserves all rights in the Gracenote Data, Gracenote Database, and Gracenote Embedded Software, including all ownership rights. You agree that Gracenote may enforce its rights under this Agreement against you directly in its own name.

The Embedded Software and each item of Gracenote Data are licensed to you "AS IS." Gracenote makes no representations or warranties, express or implied, regarding the accuracy of any Gracenote Data. Gracenote reserves the right to delete data or to change data categories in any Data updates and for any cause that Gracenote deems sufficient. No warranty is made that the Embedded Software is error-free or that functioning of the Embedded Software will be uninterrupted. Gracenote is not obligated to provide you with any new enhanced or additional data types or categories that Gracenote may choose to provide in the future.

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FireBall™
DIGITAL MUSIC PLAYER
MP-150

Quick Setup

ESCIENT
6325 Digital Way, Indianapolis, Indiana 46278
Phone: 800-372-4368 Press "3" For Support
Hours: Monday - Friday 9:00am - 7pm EST
Fax: 317-616-6790
www.escient.com
Email: support@escient.com
Document Number: M22150-01A1
Feb 2005

1. UNPACK YOUR NEW FIREBALL™ MP-150

- Unpack the FireBall, cables, and accessories (save the box).
- Install the included batteries into the remote.
- Make note of the serial number (located on the back).

SERIAL NUMBER: _____

2. CONNECT FIREBALL TO YOUR AUDIO SYSTEM

A) Locate the included composite video and analog audio cables.
B) Connect FireBall to any available A/V input on your receiver or TV.

Note: You may use optional s-video or component video cables and optional digital audio cables for the best picture and sound quality. Contact your Escient dealer for more information.

3. CONNECT FIREBALL MP-100 TO THE FIREBALL SERVER

FireBall MP-150 streams audio from FireBall Servers over an Ethernet network. Connect the FireBall MP-150 to a FireBall Server via an Ethernet hub or router using the included Ethernet cable. The FireBall MP-150 can also stream Internet Radio stations if you have a broadband Internet connection.

A) Connect the FireBall MP-150 to your Ethernet network using a standard Ethernet cable (included)

Note: There are optional wireless (WIFI or 802.11) and A/C power line (HomePlug) network bridges that will allow you to connect your FireBall to your Ethernet network if there are no Ethernet jacks close to where you install FireBall.

Additional information on networking can be found in the Setup section of the FireBall MP-150 User's Manual or on-line at the Escient FireBall support web-site: www.escient.com/support.html.

4. CONNECT THE POWER CORD TO AN AC OUTLET AND TURN IT ON

A) Plug FireBall into an AC power outlet.

Note: The power LED on the front of the FireBall will begin to flash. The power LED will turn solid RED once the FireBall has completed its initialization process indicating the unit is in standby.

B) Once the power LED has stopped flashing, press the power button on the front panel or on the remote to turn on the FireBall MP-150 (the power LED will turn BLUE). The FireBall welcome screen should now be displayed on your TV.

Note: You may have to press the FB1 button on FireBall's remote to configure it to control the FireBall MP-150.

5. FIREBALL QUICKSTART AND REGISTRATION

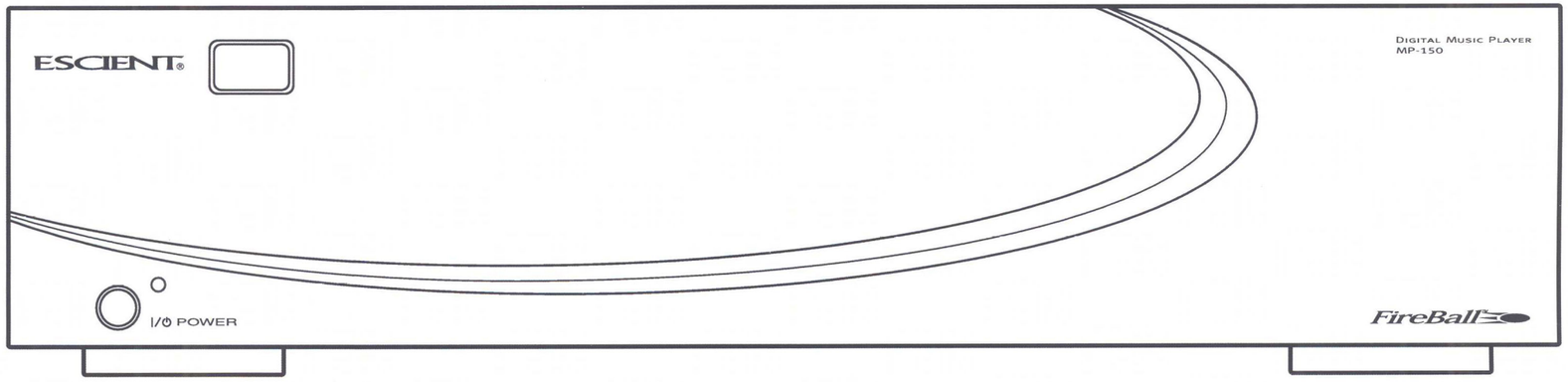
A) The initial screens that are displayed by FireBall are called the QuickStart screens and are used to configure your Internet connection information.

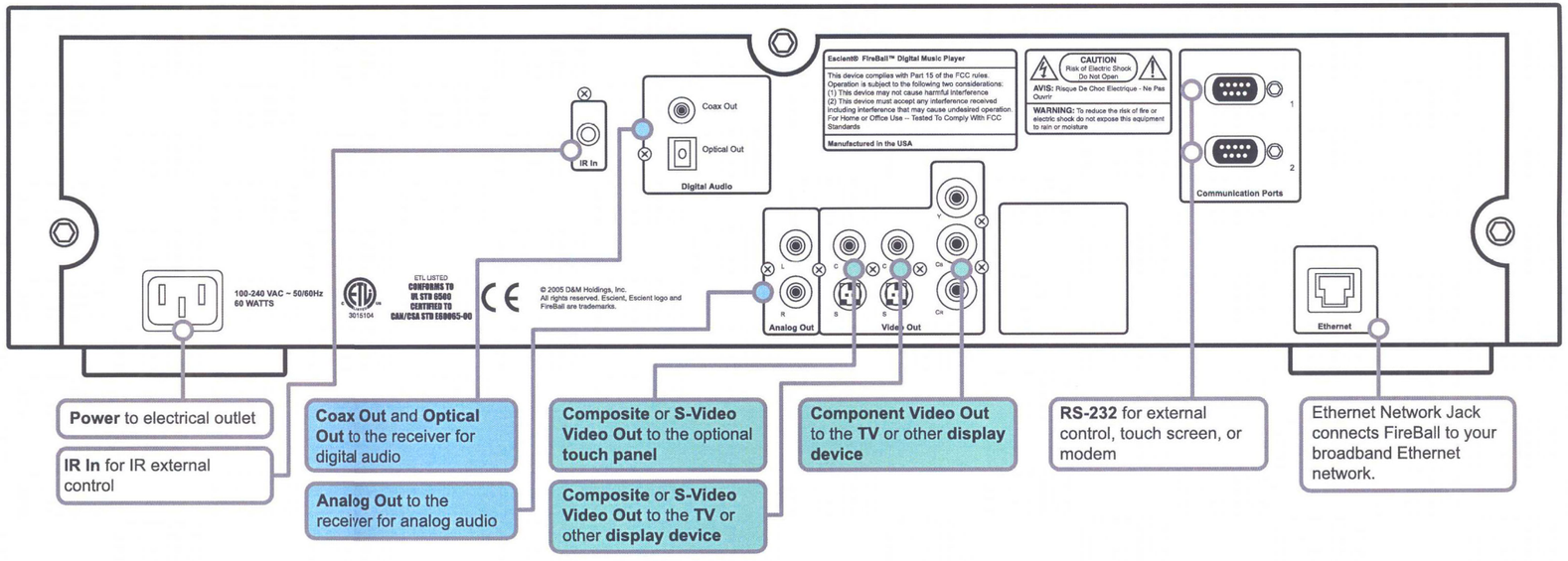
B) Press the Select key on the FireBall remote to display the first QuickStart screen and then follow the on-screen directions for completing the Quick Start and registration process.

C) Refer to your FireBall User's Guide for more detailed information.

Note: The MP-150 requires an Internet connection to complete the registration process. If the Internet connection method is dialup then an external modem must be used with the MP-150. An alternate method would be to use Internet connection sharing via a PC or dialup router. Contact your Escient dealer for more information.

RECEIVER CONNECTION
DISPLAY CONNECTION
GENERAL CONNECTION




IR In
Coax Out
Optical Out
Digital Audio
EscientⓇ FireBall™ Digital Music Player
This device complies with Part 15 of the FCC rules. Operation is subject to the following two considerations: (1) This device may not cause harmful interference (2) This device must accept any interference received including interference that may cause undesired operation. For Home or Office Use -- Tested To Comply With FCC Standards
Manufactured in the USA
CAUTION Risk of Electric Shock Do Not Open
AVIS: Risque De Choc Electrique - Ne Pas Ouvrir
WARNING: To reduce the risk of fire or electric shock do not expose this equipment to rain or moisture
Communication Ports
100-240 VAC ~ 50/60Hz
60 WATTS
ETL LISTED
CONFORMS TO UL STD 6500
CERTIFIED TO CAN/CSA STD E60065-00
3018104
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Analog Out
Video Out
Ethernet
Power to electrical outlet
IR In for IR external control
Coax Out and Optical Out to the receiver for digital audio
Analog Out to the receiver for analog audio
Composite or S-Video Video Out to the optional touch panel
Composite or S-Video Video Out to the TV or other display device
Component Video Out to the TV or other display device
RS-232 for external control, touch screen, or modem
Ethernet Network Jack connects FireBall to your broadband Ethernet network.

FireBall™ DIGITAL MUSIC PLAYER MP-150

Time For Fun

ESCIENT
6325 Digital Way, Indianapolis, Indiana 46278
Phone: 800-372-4368 Press "3" For Support
Hours: Monday - Friday 9:00am - 7pm EST
Fax: 317-616-6790
www.escient.com
Email: support@escient.com
Document Number: M22150-01A1
Feb 2005

REMOTE OVERVIEW:

CODE SET
Code Set - used to set the universal IR source buttons. See manual for details.

UNIVERSAL SOURCE SELECT
TV / Cable / Receiver / DVD - used to configure the remote to control other devices. See manual for details on the universal remote functions.

KEY PAD
Alpha / Numeric / Enter - used for entering numbers and text. Also used for searching in the movies, music and radio guides.

VOLUME CONTROL
Volume Up / Volume Down / Mute - Universal remote can be configured to operate volume on TVs and receivers. See manual for detailed setup steps.

GUIDE
Guide / Player - toggles between Guide and Player screens.

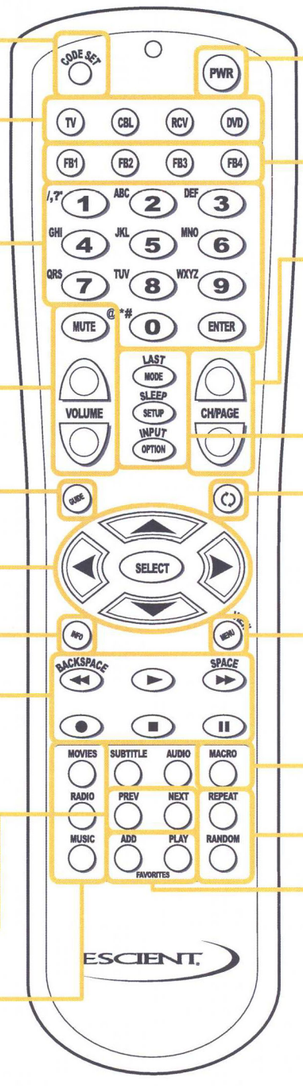
NAVIGATION & SELECT
Up / Down / Left / Right / Select - used to navigate and select on-screen menus and buttons.

INFO
Info - displays additional music info

TRANSPORT CONTROLS
Rewind / Play / Forward / Record / Stop / Pause - used to control playback of music. Also used for text entry and for canceling certain operations.

DISC PLAY FUNCTIONS
Previous / Next - skip disc functions.

MODE GUIDE SELECT
Music / iRadio - used to select FireBall modes.



POWER
Power - used to toggle the current source device on and off.

FIREBALL SELECT
FireBall 1 / FireBall 2 / FireBall 3 / FireBall 4 - use FB1 to control the FireBall. Use other FB buttons if additional FireBall products are installed.

CHANNEL / PAGE CONTROL
Channel/Page Up/Down - used to page up and down in Guide and Player screens.

CONTROL
Mode - changes music play modes: normal, random, repeat etc.
Setup - displays Setup menu.
Options - displays Options menu.

ALL / NONE
Toggle ALL or NONE on Select Guides.

VIEW / MENU
View / Menu - toggles through various Guide Views (artist, title, cover).

MACRO FUNCTION
Macro Function - used to directly access various music, movie and radio items and controls.

MUSIC PLAY FUNCTIONS
Repeat / Random - used to cause the system to play the current group/genre in repeat or random playback mode.

MUSIC FAVORITES
Add-Favorites / Play-Favorites - used to add the currently highlighted music track to the Favorites playlist and to play the favorites playlist.

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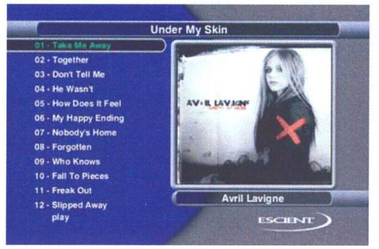
ON-SCREEN INTERFACE OVERVIEW

MUSIC

GUIDE

Music Guide - Browse and manage your Music collection

PLAYER



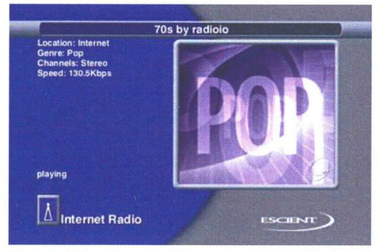
Music Player - display and control the currently playing music title

OPTIONS

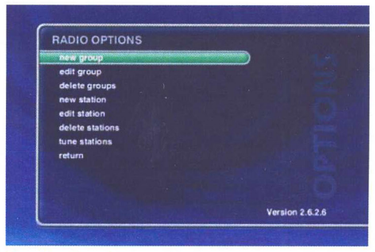
Music Options - allows you to create playlists and groups, edit disc information and access other music features

RADIO

Radio Guide - browse and manage Internet radio stations



Radio Player - displays the currently playing radio station, location, channels and speed (if available)



Radio Options - allows you to create custom groups, tune new stations and access other radio features

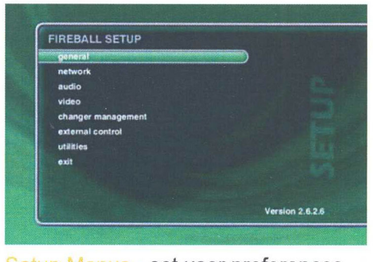
LISTEN TO YOUR MUSIC

- Press the Music key on the remote.
- Highlight the Music Title you want to listen to.
- Press Play.
- The music begins to play.

LISTEN TO AN INTERNET RADIO STATION

- Press the Radio key on the remote.
- Highlight the Station you want to listen to.
- Press Play.
- FireBall will connect and begin to stream (play) the station.

SETUP



Setup Menus - set user preferences and configure external changers

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PRODUCTS FOR THE HUMAN INTERFACE.

ADDING INTERNET RADIO STATIONS

How to add your own Internet radio stations to FireBall's Radio Guide

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Adding New Internet Radio Stations

Your FireBall is able to deliver a variety of Internet radio station programming through its connection to the Internet. Escient's OpenGlobe Internet radio service provides a large variety of stations including Radio Free Virgin and various other stations from across the country. These stations can be selected for playback in the Radio Guide view.

In order to increase your listening enjoyment, FireBall also allows you to add new Internet Radio to the Radio Guide for playback. The FireBall will tune stations that broadcast in the Microsoft WMA V2, V7 and V8 formats at bit rates up to 192kpbs. A complete list of the supported bit rates is listed in Appendix A. The procedure below will give you some examples of how to find new stations and add them to the Radio Guide.

Locate New Stations

Internet Radio is a fairly new form of radio broadcasting which all terrestrial radio stations have not yet adopted. Please keep in mind that the station you are interested in may not broadcast over the Internet, or it may use a proprietary interface only accessible from a PC. You can locate Internet radio stations using various Internet Radio web sites that can be accessed using the Internet Browser on a PC. One example is Radio-Locator. Simply, go to **http://www.radio-locator.com** and type in the station call letters, zip code, State code, Genre, or Country in the fields provided and press **GO**. The radio locator will return information about the station or the area that you requested. Click on the (i) icon in order to find the detailed information about the specific station. From the Information page, the radio locator will list an Internet address for the Audio Stream location. If this address ends with a **.asx** or **.asf** file extension, then the FireBall may be able to playback this station.

Examples:

WSM-AM 650 kHz
Nashville, Tennessee
"America's Country Music Station"
Audio Feed: mms://mmslb.eonstreams.com/wsmam1.asf

KFOG-FM 104.5 MHz
San Francisco, California
"K-Fog Worldclassrock 104.5"
Audio Feed: http://www.streamaudio.com/stations/asx/kfog_fm.asx

Add The Stations To The Guide

While in the Radio mode, press the Menu button on the remote, and select "New Station" from the list of options. When prompted as to what station you would like to add, select "Internet". Using the remote control or a USB keyboard, type in the information about the station in the fields provided. The Audio Feed information goes into the field titled "**URL"**. Once completed, press the record button to save this information. Your new radio station is now available to select in the Radio Guide!

Listen to the New Stations

Select the station to playback while in the Radio Guide by either pressing the Select button, or the Play button while the station is highlighted. The station will begin playback by first locating the station, connecting to the server, buffering the data, then playing. If the station is not available, a message will be displayed on the screen indicating that the "Station Is Not Available".

Uh oh, "Station Not Available"?

There are several reasons why an Internet radio station is not available. At any time, the radio broadcaster may decide to no longer stream over the Internet, or the radio broadcaster may also select to change formats and no longer deliver a stream that can be played back by the FireBall. Escient will work hard to guarantee the quality of the stations that are provided in the Radio Guide, however, there can be no guarantee to those station created by the users.

FireBall Supported Internet Radio Formats and Bit Rates

The following table lists the specifications for each type of supported WMA radio stream.

WMA-Audio V2, V7 and V8		
Bitrate	Sampling Frequency	Channels
5Kbps	8KHz	Mono
6Kbps	8KHz	Mono
8Kbps	8KHz	Mono
	11.025KHz	Mono
10Kbps	11.025KHz	Mono
	16KHz	Mono
12Kbps	16KHz	Mono
	8KHz	Stereo
16Kbps	16KHz	Mono
		Stereo
	22.05KHz	Mono
20Kbps	16KHz	Stereo
	22.05KHz	Mono
		Stereo
	32KHz	Mono
22Kbps	22.05KHz	Stereo
	32KHz	Stereo
32Kbps	22.05KHz	Stereo
	32KHz	Stereo
	44.1KHz	Mono
		Stereo
36kbps	32KHz	Stereo
40Kbps	32KHz	Stereo
44kbps	32 Khz	Stereo
48Kbps	32KHz	Stereo

	44.1KHz	Mono
		Stereo
64Kbps	32 Khz	Stereo
	44.1KHz	Stereo
80Kbps	44.1KHz	Stereo
96Kbps	44.1KHz	Stereo
128Kbps	44.1KHz	Stereo
	48KHz	Stereo
160Kbps	44.1KHz	Stereo
	48KHz	Stereo
192Kbps	44.1KHz	Stereo
	48KHz	Stereo

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FIREBALL ACCESSORIES

Accessories for Escient FireBall Products

6325 Digital Way Indianapolis, IN 46278 317.616.6789 phone 317.616.6790 fax www.escient.com

Escient FireBall Product Accessories

Please contact your Escient dealer for more information and pricing.

Escient 15” LCD Touch Panel

Features:

- LCD Display 15" TFT Active Matrix Panel
- Display Size 304.1x228.1 mm
- Pixel Pitch 0.297x0.297 mm
- Display Mode VGA 640x350(70Hz)
- VGA 640x480 (60/72/75Hz)
- Contrast Ratio 300
- Brightness 230 cd/m2
- Display Colors 16M(dithering)
- Viewing Angle +60°~-60°(L/R), +40°~-60°(U/D)(Max.)
- Video in: PAL/NTSC & S-video
- Wide Viewing Angel
- Power Universal 90-240V, 12V/35W
- Dimensions 355.5x379x162 mm
- Weight(Net) 7.5Kg

FireBall to Pioneer DVD Changer Serial Cable

FireBall to Sony DVD Changer Serial Cable

Optical Digital Audio Cable (3')

FireBall IR Keyboard

FireBall IR Remote

FireBall DVDM IR Keyboard

FireBall DVDM IR Remote

USB to Ethernet Adapter (Smart Nic2)

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

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PRODUCTS FOR THE HUMAN INTERFACE.

INSTALLER CHECKLIST

Installation Checklist for Escient FireBall Products

6325 Digital Way Indianapolis, IN 46278 317.616.6789 phone 317.616.6790 fax www.escient.com

Escient FireBall Installation Checklist

The follow are recommendations for installing Escient FireBall music and movie management systems. Feel free to add your own information to this list depending on what other equipment will be installed with the FireBall systems.

Note: Escient FireBall products require a dialup or broadband Internet connection to operate fully. Please pay special attention to the Network Information section.

Customer Information

Name: _____

Address 1: _____

Address 2: _____

City: _____

State: _____

Zip Code: _____

Phone: _____

Email: _____

Dealer/Installer Information

Dealer: _____

Installer: _____

Address 1: _____

Address 2: _____

City: _____

State: _____

Zip Code: _____

Work Order: _____

Phone: _____

Email: _____

ISP Information

Service Provider: _____

Support Number: _____

Connection Type

☐ Dialup ☐ LAN ☐ ISDN
☐ Cable Modem ☐ DSL ☐ Other

Dialup Info

Access Numbers: _____ _____

User Name: _____

Password: _____

IP Info

Addressing: ☐ Dynamic (DHCP) ☐ Static

IP Address: _____

Gateway/Router: _____

Net Mask: _____

Domain Name Servers: _____ _____

Note: If installing more than 1 FireBall on a Static network, each will require its own IP Address.

FireBall 2 IP Address: _____

FireBall 3 IP Address: _____

FireBall 4 IP Address: _____

FireBall 5 IP Address: _____

Disc Changers

Up to 3 of the same brand are supported per FireBall.

#1: Brand:_____Model:_____ Serial Number:_____

#2: Brand:_____Model:_____ Serial Number:_____

#3: Brand:_____Model:_____ Serial Number:_____

Audio Connections

☐ Analog Stereo ☐ Optical Digital ☐ Coax Digital ☐ 5.1 Analog

Video Connections

☐ Composite ☐ S-Video ☐ Component

Optional Accessory Checklist

☐ Escient Touch Panels _____
☐ Extra IR remotes _____
☐ Extra IR keyboards _____
☐ S-Link Cables _____
☐ RS-232 Cables _____
☐ Ethernet Hub _____
☐ Extra Ethernet Cables _____

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PRODUCTS FOR THE HUMAN INTERFACE.

HOME NETWORKING PRIMER

An overview of the different types of home networks

6325 Digital Way Indianapolis, IN 46278 317.616.6789 phone 317.616.6790 fax www.escient.com

Home Networking F.A.Q. (Frequently Asked Questions)

Q: What is Home Networking?
A: Home networking refers to technology that connects computers and other electronic devices for the purpose of sharing audio, video, peripherals, or a broadband Internet connection.

Q: How much does it cost?
A: Basic networking (linking PCs to share a printer) costs about $50 for Ethernet cards and cables. More elaborate setups to split a broadband connection cost more. Wireless and Powerline networking products are about two times more expensive but are somewhat easier to set up and more convenient.

Q: Do I really need a home network?
A: For households with more than one PC, a simple home network is worth the expense. Rather than buy a dedicated peripheral for each PC, one can be shared. Even better, but more complicated to set up, is splitting a broadband connection among several PCs.

Q: Can I mix and match networking products from different vendors?
A: Yes, but unless you're technically proficient, this isn't advised, particularly for newer wireless networks. That's because there are competing standards for wireless, and they don't all communicate correctly. Even products that support the same standard, such as 802.11b, don't always work together smoothly.

Q: Who makes networking products?
A: Several companies make wired and wireless network products for the home. Some of the most prominent are:

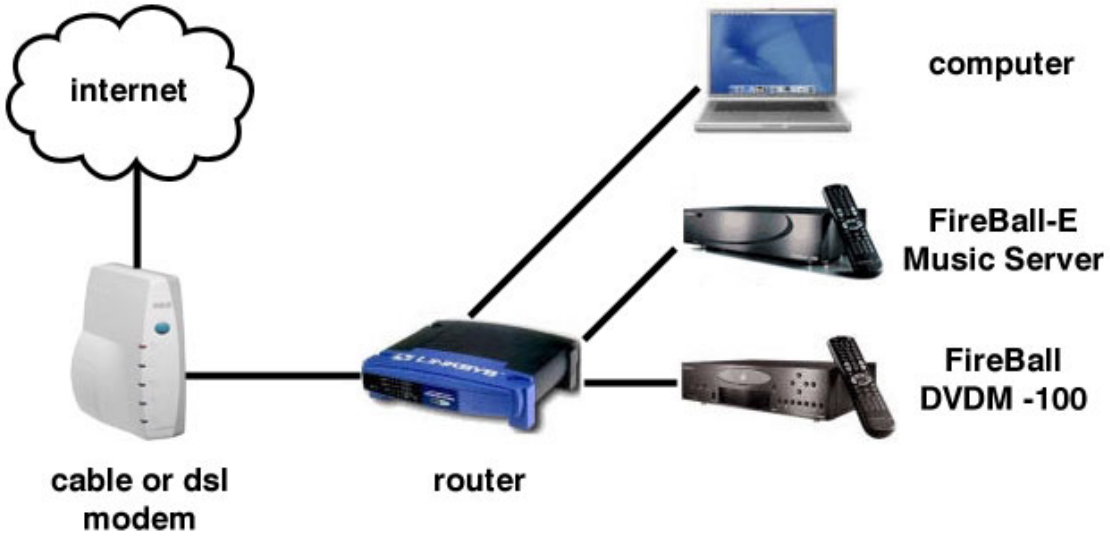
- Linksys
- 3Com
- Intel
- D-Link
- NetGear
- Apple Computer
- Cisco
- Belkin

Types of Networks

Ethernet: 10/100Mbps

The most popular network method because of the low price of the network cards, reliability and speed; but it can be a pain to run the wires through your home. Ethernet networking is built into most modern computers and the current Escient FireBall product line. There are many companies who provide ethernet networking products and they are available at any computer or electronics retailer.

Here is a sample Ethernet Network with a cable or dsl modem connection to the Internet. A "Router" is used to connect multiple Ethernet Devices (including a FireBall-E Music Server and a FireBall DVDM-100) to share a single broadband Internet connection. Each device needs to be connected to the router using an ethernet cable.



Sample Ethernet Network

Powerline Networking

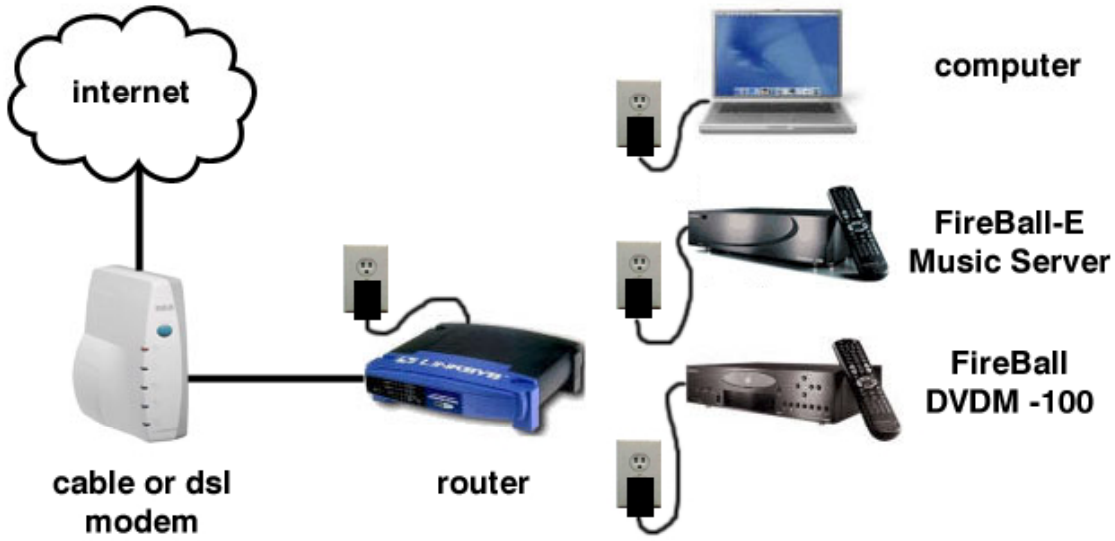
Powerline Networking (also called HomePlug Networking) allows easy network setup across existing 110V electrical outlets. It works with 2 & 3 prong standard 110 volt electrical outlets, transfers data at speeds up to 14 mbps (faster than 802.11b wireless) and it is compatible with 10Mbps or 10/100 Mbps ethernet products.

Powerline adapters are available from the following companies:

- Asoka Powerline
- Belkin
- Corinex Powernet
- DLink

- Gigafast Ethernet
- IOGear
- Linksys
- Netgear
- Phonex Broadband
- Siemens
- ST&T Corporation
- Telkonet

Here is a sample Powerline Network with a cable or dsl modem connection to the Internet. Again, a “Router” is used to connect multiple Powerline Devices to share a single broadband Internet connection. Ethernet cables are used to connect the network devices to the Powerline adapters. You will also need a Powerline adapter at the Router location so that the Powerline signals can be connected to the rest of the network and access Internet connection.



Sample Powerline Network

Wireless 802.11b: 11 Mbps

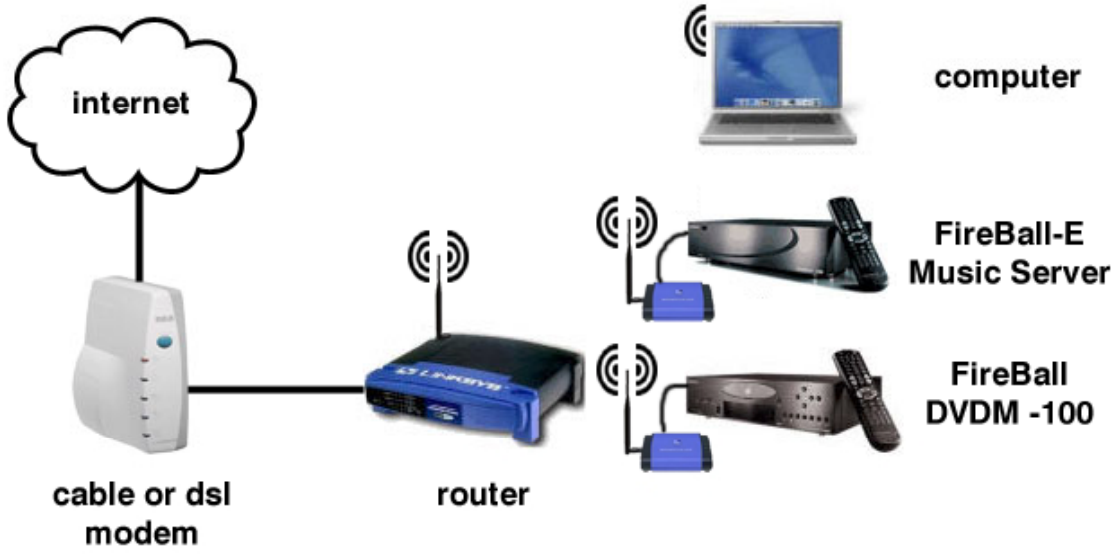
802.11b is now the standard for wireless networking in both the home and business. It has become inexpensive, has good speed but may not be appropriate for some secure communications.

Wireless 802.11g: 22/54 Mbps

An upgrade to 802.11b, the 802.11g standard doubles the speed of 802.11b while retaining compatibility.

Here is a sample wireless network where the FireBall=E Music Server and FireBall DVDM-100 are each connected to an Ethernet to Wireless adapter. The computer has built-in wireless connectivity and the router is a hybrid router/wireless access point. The wireless devices are

able to access the shared broadband Internet connection because the router/access point provides the “bridge” between the wireless and wired networks.



Sample 802.11 Wireless Network

HomePNA 2.0 (Phone Line): 10Mbps

HPNA, PhoneLine or HomePNA networking works over the existing copper telephone wires in your home without interfering with voice or DSL communications. HomePNA 3.0 will push the speed up to 100Mbps when it comes out.

Escient FireBall-H products use HomePNA networking.

Alternative Networking Technologies

Alternative networking technologies are often used to supplement a primary network. They are not as popular as the aforementioned networks, but are still available. The can be 'bridged' to other networks to create a single integrated network. You can buy different network adapters to ‘bridge’ or connect one type of network to another.

Ethernet: Gigabit - 1000TX

The fastest network technology available to the home or small business, gigabit ethernet comes built in to most Mac systems now. As the name suggests, gigabit ethernet runs at 1000Mbps

Wireless 802.11a: 54 Mbps

A new standard for wireless ethernet, 802.11a is incompatible with 802.11b and g. It does however offer amazing speeds for a wireless network, but is not as popular as 802.11g

Firewire Networking - 400Mbps

Modern operating systems now support networking over firewire cables. Most appropriate for short distances, firewire is FAST and inexpensive to install. Great for transferring huge video files between computers! 800Mbps firewire is also available on new Mac systems.

Bluetooth

A new ‘personal’ wireless networking technology, Bluetooth has recently made an appearance. It is easy to implement and will be VERY inexpensive soon. Because of its low speed (1.5Mbps) it is not appropriate as a replacement for other networks but IS valuable for connecting peripherals.

Wireless HomeRF 2.0: 10Mbps

Developed to compete with 802.11b, HomeRF made a brief appearance and died off. Siemens and Proxim were the main supporters.

Ethernet Networking

Ethernet is the most popular and considered the networking topology standard for most computer connections. There have been many kinds of Ethernet, but the most popular is 10/100Mbps running over copper twisted pair wires. 100Mbps Ethernet is also called 100baseT and Fast Ethernet.

All current Escient products support built-in Ethernet networking.

Note: Older Ethernet standards ran on COAX cable and were referred to as 10base2 Thin Ethernet and 10base5 Thick Ethernet. Some hubs still have a coax connector to bridge together twisted pair and Thin Ethernet networks.

A newer Ethernet standard called Gigabit Ethernet or 1000baseT also can run over copper wire but hubs ands switches are VERY expensive.

10/100 Ethernet

Connections:

Connections between 10/100 Ethernet adapters are made using cables that run to an Ethernet HUB or Switch. Hubs electrically connect your computers together and switches act like traffic cops making your network more efficient.

When only two computers are present. A special kind of Ethernet cable can be used called a “CROSSOVER cable.

Cables:

10/100 Ethernet cables have 8 wires, of which 4 are used for data. The other wires are twisted around the data lines for electrical stability and resistance to electrical interference. The cables end in RJ-45 connectors that resemble large telephone line connectors.

Two kinds of wiring schemes are available for Ethernet cables. Patch cables and Crossover cables. Crossover cables are special because with a single cable, two computers can be directly connected together without a hub or switch. If a cable does not say crossover, it is a standard patch cable. If you are connecting computers to a hub or switch, you need patch cables.

There are also different grades of cable quality. The most common are CAT5, CAT5e and CAT6. CAT5 is good for most purposes and can transfer data at 100Mbps. CAT5e is rated for 200Mbps and CAT6 is rated for gigabit Ethernet. Run CAT5e whenever possible because there is usually not a cost difference from CAT5 if you look hard enough.

Maximum distances:

For all twisted pair Ethernet, 100Meters is your maximum distance.

Ethernet to Fiber

Ethernet to Fiber media converters are starting to come down in price - they can be found for under $150. When 100Meters is not enough distance, an Ethernet to fiber media converter can

be placed on each end making the maximum distance something like 40Km. Another use for fiber is electrical insulation. Some people like to run cables underground between homes. If you run CAT5 cable, the homes have different 'ground potentials' and you will burn out network card during any electrical storm. The solution is fiber! Run fiber between the homes or run a pair of fiber converters on one end of the cable with a short fiber run. This will electrically separate the two homes.

Wireless Networking with 802.11b

In 2000, 802.11b became the standard wireless networking technology for both business and home. The WiFI organization was created to ensure interoperability between 802.11b products. With a realistic throughput of 2.5-4Mbps, it is fast enough for most network applications and tolerable for file transfers.

Wireless to Ethernet Bridges can be used to connect Ecient products to your Ethernet network when you can't run ethernet cables to your equipment.

Access Points

An 802.11b wireless network adapter can operate in two modes, Ad-Hoc and Infrastructure. In infrastructure mode, all your traffic passes through a wireless 'access point'. In Ad-hoc mode your computers talk directly to each other and do not need an access point at all.

Access point varieties

Access points come in three varieties -- bridge, NAT router and NAT router+bridge. A bridge connects a wireless network to a wired network transparently.

Communication is possible between both networks in both directions. A NAT router type routes traffic from your wireless network to an Ethernet wired network, but it will not route traffic back. This type can be used to share an Internet connection. Lastly, there are hybrid NAT router + Bridge devices that bridge your wired and wireless networks, then route them both to the internet using a single IP address. This is good for sharing an Internet connection when you have both wired and wireless computers in your home. These are often called Cable or DSL routers with wireless access points built-in.

Security

Any network adapter coming within range of another 802.11b network adapter or access point can instantly connect and join the network unless WEP – Wireless Encryption Protocol – is enabled. WEP is secure enough for most homes and business, but don't think it can't be hacked. There are several flaws in WEP making it unusable for high security applications. At this point, it takes some serious hacking abilities to bust into a WEP enabled network so home users should not worry.

WEP and Speed

WEP 'WILL' slow down your wireless network. Expect a 20-50% reduction in speed depending on the products you are using. The speed issue is often the result of an access point without enough processing power.

Encryption

Encryption comes in 64bit and 128bit key varieties. All your nodes must be at the same encryption level with the same key to operate. 40bit and 64bit encryption is the same. it's just a matter of how the manufacturer decided to label the product. Often 128bit cards can often be placed in 40/64bit mode.

Form Factors

802.11b adapters come in two major form factors. PC Cards for laptops and USB for desktops. In addition, there are PCI adapters that let you plug a PC Card into a PCI Slot.

Speed

A full strength 802.11b signal will get you about 3.5-4.5 Mbps without WEP enabled. With WEP enabled, expect 2.5-3.5 Mbps. As you put walls and distance between your wireless adapter and your access point, your speed will drop. Don't expect to put more than a few walls between you and your access point.

Technical Specs

802.11b is a half duplex protocol – it can send OR receive, but not both at the same time. In addition it uses the same 2.4 GHz range as many cordless phones so plenty of opportunity exists for interference. Use 900Mhz cordless phones if using 802.11b in the same area.

Distance

Distance will very widely depending on which wireless networking device you are using, what kind of antenna it uses, the construction materials in your home, electrical interference, and capabilities of the wireless receiver. Some people have used directional antennas to get some serious range out of their 802.11b products – miles!

Faster Wireless 802.11g

The 802.11g spec was drafted in Nov of 2001. 802.11g operates on the same frequency as 802.11b and is backwards compatible. The planned common implementation of consumer 802.11g devices operate at a maximum of 22Mbps but can communicate at up to 54Mbps. 802.11g is sometimes called 'Turbo Mode' on some 802.11b cards.

Like 802.11b, 802.11g is subject to the same interference and security issues. It operates at 2.4Ghz and may cause problems with 2.4Ghz cordless telephones.

When a 802.11g product communicates with an 11Mbps 802.11b product, it drops down to 11Mbps or less depending on signal strength. In other words, if you purchase an 802.11g product for use with an 802.11b access point, expect only 11Mbps.

Powerline Networking

Powerline networking has existed in a few forms in the past, the latest specification is called HomePlug and runs at 14Mbps. HomePlug uses your existing home electrical wiring to transfer data.

HomePlug does not interfere with your existing electrical equipment or home automation devices like X-10, CEBus, and LONworks. HomePlug also encrypts all data with 56bit DES encryption to ensure that your neighbors can not eavesdrop on your network traffic. Note: encryption is usually not enabled by default and must be 'turned on' using software provided by the devices manufacturer.

The HomePlug specification incorporates a technology called PowerPacket. This new technology is what makes HomePlug different from the old Powerline networks. PowerPacket eliminates noise from electrical appliances like hair driers and televisions plus it offers security.

Powerline network adapters come in PCI and USB versions but are fairly expensive right now - about $50 to $100 per computer. There are also Powerline to Ethernet bridges and Powerline broadband routers with ethernet bridges built-in, in the same price range.

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FireBall Client-Server Installation Guide

A Guide to Installing Multiple FireBall Products

6325 Digital Way Indianapolis, IN 46278 317.616.6789 phone 317.616.6790 fax www.escient.com

FireBall Client Server Products

Servers

A FireBall Server is a Fireball media management system that is capable of "serving" media to other FireBalls over a network. Currently there are three FireBall products which can serve media to other FireBalls.

- FireBall (40GB with HPNA networking)
- FireBall E-40
- FireBall E-120

Clients

A FireBall Client is a FireBall that can play media from a FireBall Server over a network. Currently there are three different FireBall products that can play media from FireBall servers:

- FireBall (40GB with HPNA networking)
- FireBall MP-100
- FireBall DVDM-100

Client Server Combinations

The original FireBall is a client and a server at the same time. It uses a peer-to-peer client and server networking scheme that allows 2 or more FireBalls to automatically synchronize their MP3 music libraries so that the contents of both the client and server appear in the Music Guides of each FireBall. You can create a rather large network providing each room access to the combined FireBall music library.

The FireBall-E servers are only servers and can not act as clients to other FireBall servers.

The newer FireBall clients (the MP and DVDM) use a standard client-server networking scheme. The following table indicates which servers are compatible with which clients.

Server / Client	FireBall	FireBall-E 40/120
FireBall	Yes	No
FireBall-E 40/120	No	No
FireBall-MP	Yes	Yes
FireBall DVDM-100	Yes	Yes

Limitations

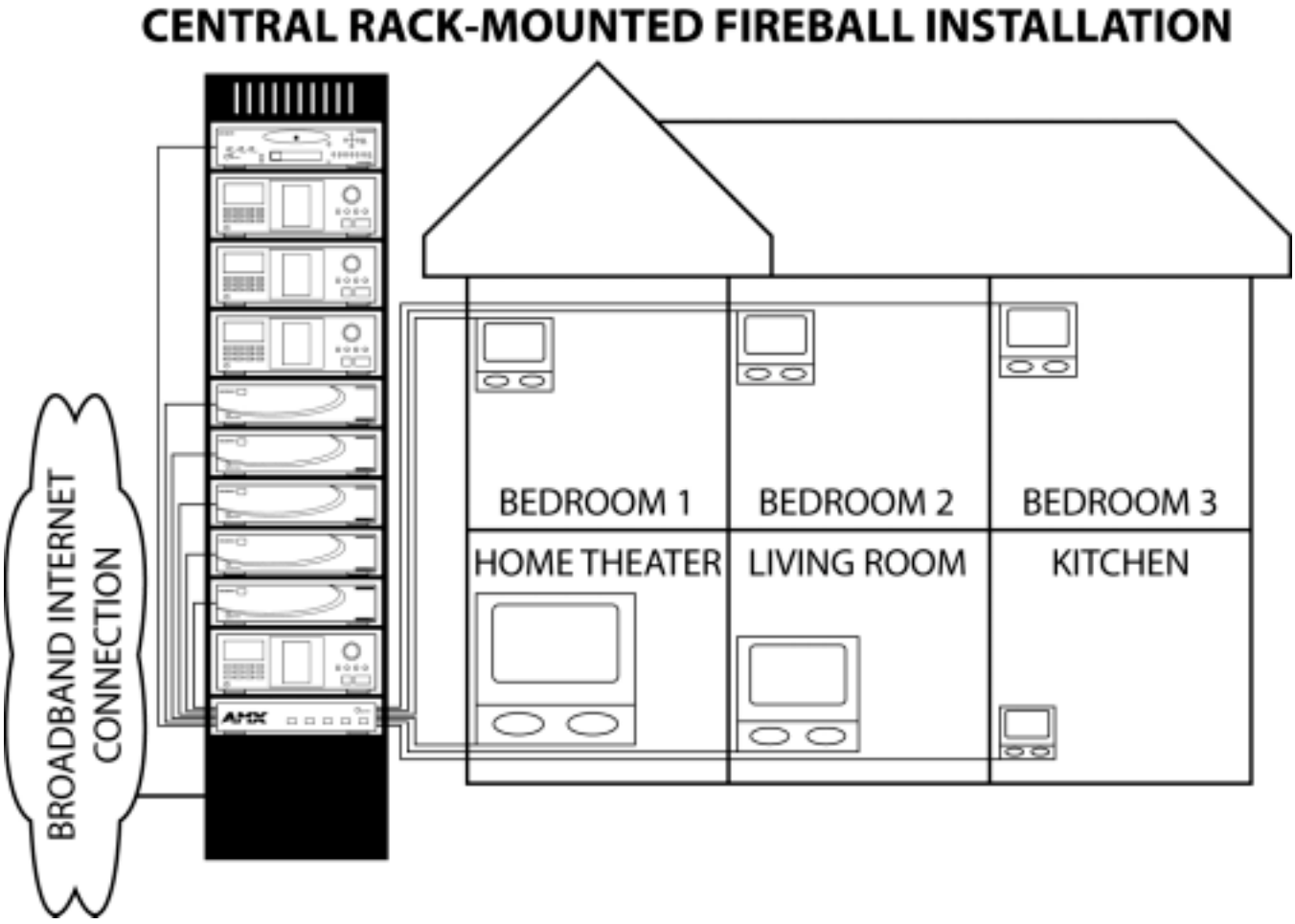
- Client-Server networking is limited to the same local subnet. You can not stream over the Internet.

- Only MP3 audio files can be streamed to clients.You can not stream WAV files, CDs from the internal drive, or from CDs located in external changers.
- Playlists that contain only MP3s will be available on the clients.
- Playlists that contain MP3s and non-streamable tracks will NOT appear on the clients.
- You may have an unlimited number of clients on the network, but you can only stream to 4 clients simultaneously.
- Movies can not be streamed.
- Internet Radio can not be streamed (but it is available on all standalone products).

Locating the FireBall Clients and Servers

Central

If you locate your FireBall clients and servers in a central location such as an equipment or utility room, you will need to use a third party audio/video distribution system to deliver sound and picture to each room. This type of installation allows great flexibility for delivering music, movie, and Internet radio to every room of the home or office and provides the professional installer with tools for almost any installation.

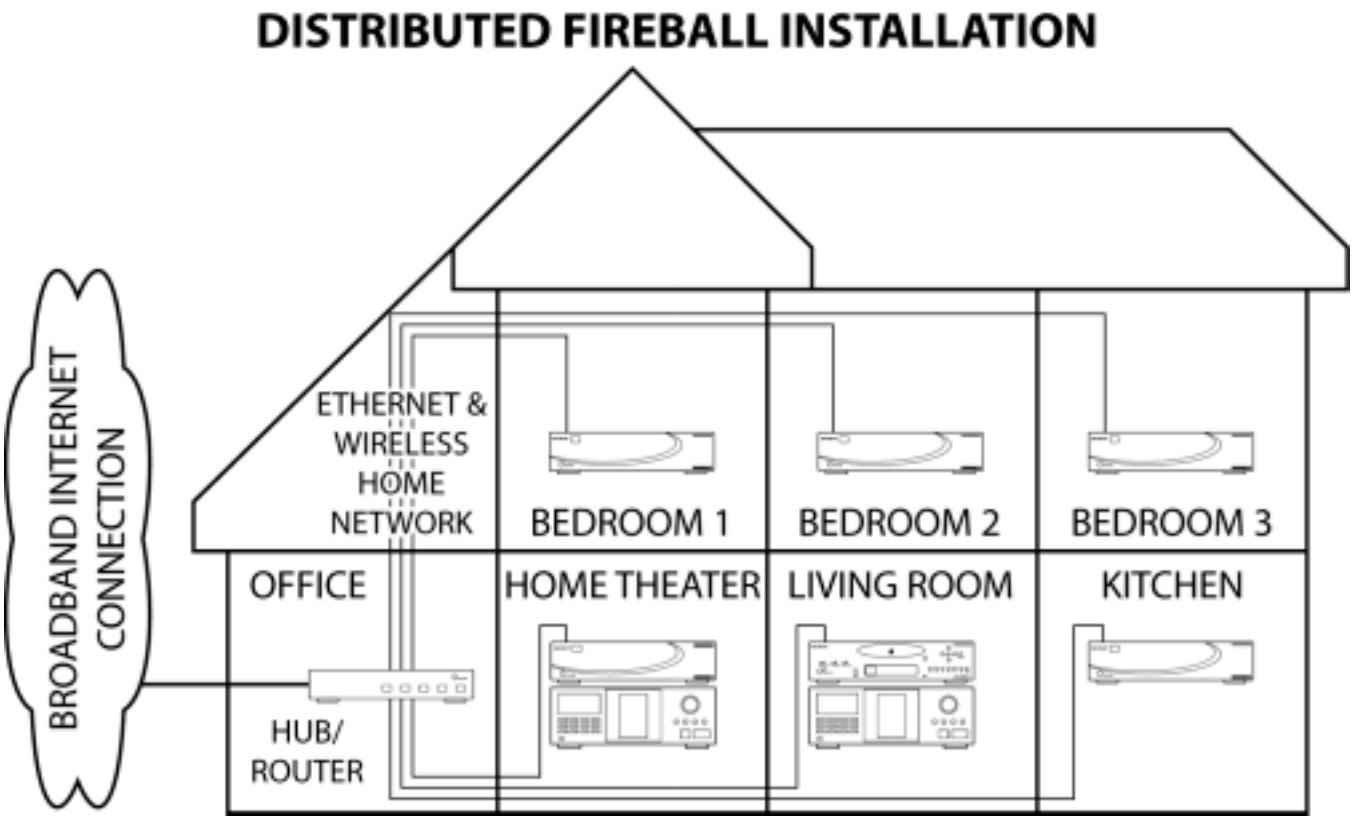


FireBall is built from the ground up with many features that allow you to centrally locate and remotely control your FireBall clients and servers, such as:

- Direct IR input
- Two way serial control over RS-232
- Two way serial control over ethernet
- Wireless IR remote and Keyboard options
- Support for 4 different IR banks (4 IR zones)
- Templates for integration into many third party wired and wireless IR distribution systems
- Philips and Marantz Pronto remote control templates

Distributed

A distributed FireBall installation means that your FireBall Servers and Clients are physically distributed or located in different rooms. Distributed FireBalls communicate over a wired or wireless network to share access to your media.

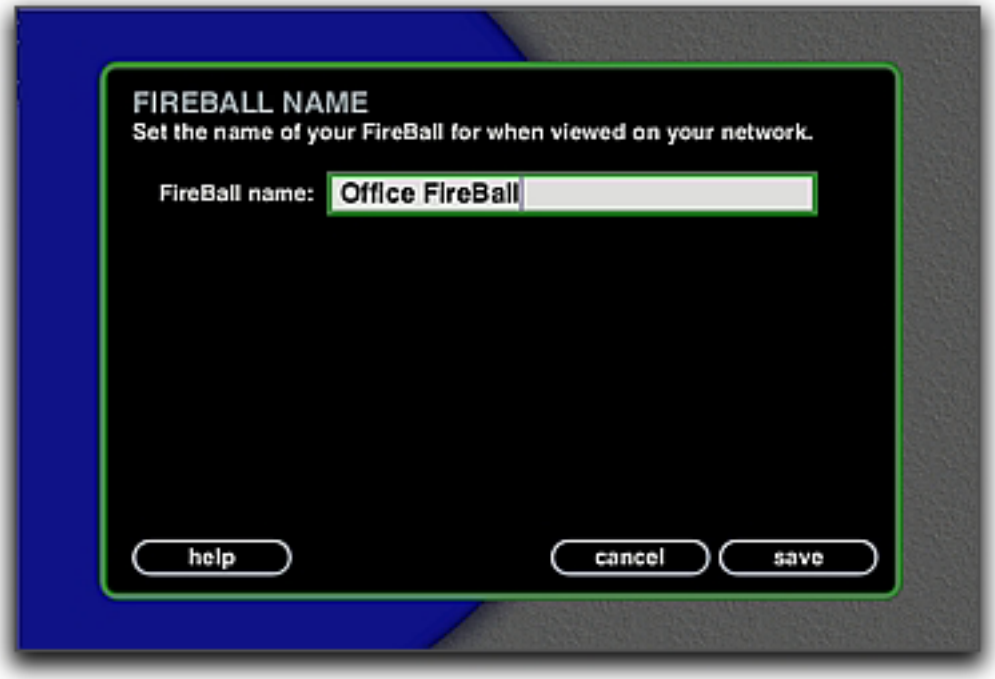


The biggest advantage of a distributed client-server system over a central system is that everything you need is built into FireBall. Networking, zoned IR, independent high-quality audio and video feeds, as well as support for an unlimited number of rooms or zones using standard ethernet wiring. (Note: only 4 clients can stream from the same server at one time).

Configuring a FireBall Server

Every FireBall capable of server functions is automatically enabled to server MP3 audio streams whenever it is plugged in and properly configured for your network.

It is recommended that you give each of your FireBall servers a unique name that describes it's location using the **FireBall Name** screen which can be accessed from **Setup/Internet Configuration/FireBall Name**. Names like "Living Room", "Home Theater", "My Music Server" are all good examples.



Configuring a FireBall Client

Networking

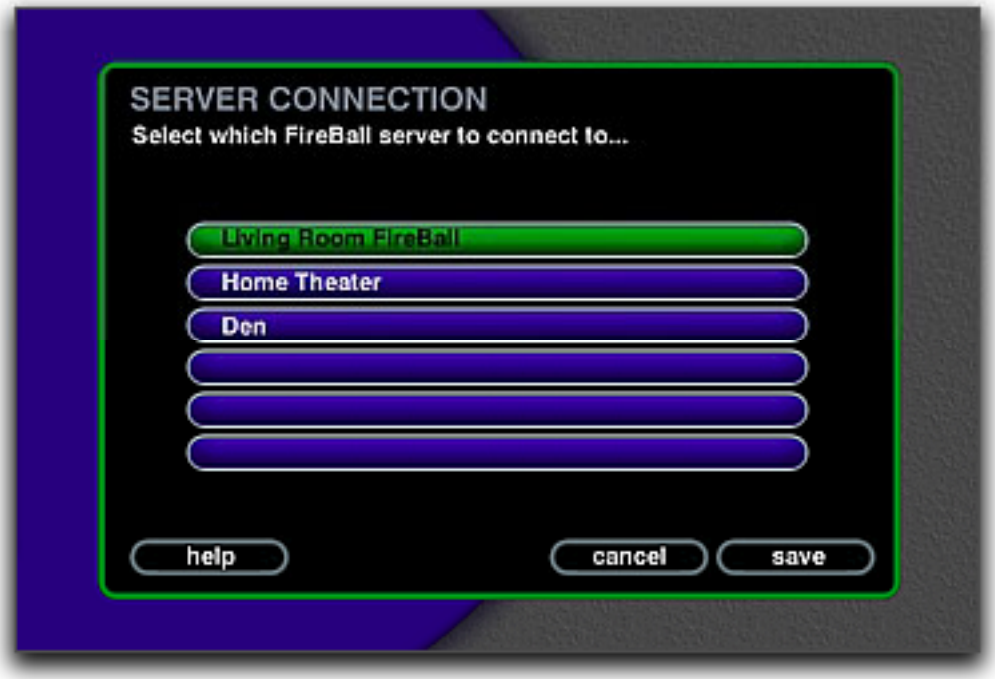
Each FireBall client must be on the same network as the server. This document will assume that you have properly connected your FireBall client to the same network as your FireBall server.

Please refer to the ***HomeNetworkingPrimer*** support document on the Escient web site for more information about home networking.

Server Selection

FireBall clients will automatically select the first server it sees on the network and connect to it upon startup.

If you have more than one server on your network, you can manually select a different server using the **Server Connection** screen which can be accessed from **Setup/Internet Configuration/Server Connection**.



The Server Connection screen displays a list of FireBall Servers found on your network by their default or user defined “FireBall Name”.

Once you select a server and save your selection, press MUSIC to view the Music Guide on the client. In a few moments, the Music Guide will display the contents of the FireBall server. You can then select and play anything from the Music Guide just as you would from a single FireBall.

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EXTERNAL CONTROL PROTOCOL

Escient FireBall External Control Protocol Specification

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External Control Protocol Specification

Commands and Responses Overview

Version 03.11.13.02.00

The external control protocol is standard ASCII based. ESCX is the four-letter preamble that is used for all commands. This preamble must be uppercase. The commands provided in this protocol allow an external control system to navigate the Escient products, get library information to build custom user interfaces, perform transport controls, and receive unsolicited feedback on system status.

All external control commands are made up of the preamble (ESCX), command group (01,02,10,20,50,70), sub command (specific task), specific data (# of data items, and a size of data packet then the actual data packet repeated for the # of data items), and a carriage return end marker.

External Control Command Structure

DESCRIPTION	PREAMBLE	COMMAND GROUP	SUB COMMAND	# DATA ITEMS	DATA ITEM #1 SIZE	DATA #1	DATA ITEM #2 SIZE	DATA #2	END MARKER
Bytes	4	2	2	3	4	5	4	3	1
Example	ESCX	01	08	002	0005	Hello	0003	Bye	Carriage Return

The external control commands are broken down into the following Command Groups:

01 – Command Responses
02 – Unsolicited Events
10 – Remote Button / Keyboard Commands
20 – Database Commands
50 – Status Commands
70 – Control Commands

All commands will cause one of the following response numbers to be issued. Some commands, such as database commands will also send back additional responses that contain more detailed information.

Command Responses

COMMAND GROUP	RESPONSE NUMBER	RESPONSE DESCRIPTION
01	01	OK
01	02	Bad Command Structure
01	03	Empty Library or Bad Range

01	04	Wrong Number of Command Arguments
01	05	Invalid Subcommand
01	06	Invalid Command
01	07	Not Available During Standby (deprecated)
01	08	Requested data not available
01	09	External control command not yet implemented (possible future implementation)
01	10	Not Available at This Time
01	11	Invalid Security Password

Response Format: ESCX01**xx**, where **xx** = Command response

Response 07 has been deprecated due to the new auto-on function. Whenever a valid command is received (with two exceptions), the system will automatically enter the "on" mode, if it is in standby. A client may still handle response 07, but it is no longer sent from the host for any reason.

Response 10 will be sent when a normally valid command is sent to the host, but it cannot be processed due to the system's mode. For example, a database play will not be processed while the system is in setup or options mode, AutoBuilding a changer, etc. Note that a key press command will never return this response, as even audio transport keys (play, stop) have alternate functions in various modes.

Unsolicited status events can be sent to report the state changes of the Escient products. There are two currently defined message levels: 5 - track changes, and 10 - all (including 1-second playing time updates). Clients are registered at level 5 by default. Clients may change their message level using the ESCX7002 command. See the control commands section for instructions on how to resister and unregister for unsolicited status event levels.

Unsolicited Status Events

COMMAND GROUP	EVENT NUMBER	EVENT DESCRIPTION
02	01	Power status changed. When the system has booted into an off state you will receive a "RDY" status indicating it is ready to be powered on and from then on an "OFF" or an "ON " status.
02		*Event Format*: ESCX02010010003**xxx**, Where **xxx** = a 3 character string "RDY" = when power is first applied and it boots into the off state (standby mode) – ready for power on. "ON " = if power on turned on (GUI appears) "OFF" = if power is off (standby mode) (Video out off)
02	02	Play Mode changed (normal, random, etc)
02		*Event Format*: ESCX02020010002**xx**, Where **xx** = the new play mode 01 = normal 02 = repeat track 03 = repeat title 04 = repeat group

		05 = random title 06 = random group
02	03	Guide View changed
02		*Event Format*: ESCX02030010002**xx** Where **xx** = the new guide view 01 = Guide changed to Artist view CD titles are displayed sorted by artist name 02 = Guide changed to Titles view CD titles are displayed sorted by CD title 03 = Guide changed to Song view Song titles are displayed sorted by song title 04 = Guide changed to Cover view Covers are displayed sorted by artist then by title
02	04	Playing Artist/Title/Song has changed
02		*Event Format*: ESCX02040070002**aa**0003**bbbccccdddeeeefffgggghhhiiiijjj**0002**kk** **aa** = the play state 01 = Play, 02 = Stop, 03 = Pause **Radio only:** 04 = Locating Station, 05 = Buffering data, 06 = Station Not Found **bbb** = current track number (0 if Radio Mode) **cccc** = length of artist name **ddd** = artist name **eeee** = length of title name **fff** = title name (station name if Radio Mode) **gggg** = length of track name **hhh** = track name (aspect ratio if Movie Mode) Aspect Ratio (Movie Mode only): 00 = Unknown 01 = Standard 1.33 02 = Standard 1.78 03 = Standard 1.85 04 = Standard 2.35 05 = Anamorphic 1.33 06 = Anamorphic 1.78 07 = Anamorphic 1.85 08 = Anamorphic 2.35 **iiii** = length of track time **jjj** = current track time (0 if Radio Mode) **kk** = current media type 00 = unknown, 01 = CD, 02 = DATACD, 03 = MP3, 04 = playlist, 05 = DVD, 06 = radio The current track, artist name, title name, track name, current track time, and media type are only returned for the play event. The stop and pause events just signify that the state has changed.
02	05	Guide Mode changed (Playlist edit mode, Record mode, Delete mode, etc) [possible future implementation]
02	06	Screen Mode changed (Guide, Player, Options, Setup, etc) [possible

		future implementation]
02	07	Database has changed. The external control system should re-read the library information.
02	08	GUI to Movie. User switched to the Full screen movie. [possible future implementation]
02	09	Movie to GUI. User switched back to the FireBall GUI from a movie. [possible future implementation]
02	10	Security Password changed. The system is now locked (password protected mode) until the user unlocks it.
02	11	Video mode changed.
02		*Event Format*: ESCX02110010002**xx** Where **xx** = the new video mode 00 = Video is in normal mode (FireBall video) 01 = Video is in passthru mode (DVD changer video)
02	12	Volume changed or muted
02		*Event Format*: ESCX02120020002**xx**0003**yyy** **xx** = new volume command 00 = Volume mute / un-mute 01 = Volume down 02 = Volume up **yyy** = zone to which the volume command applies number 000 to 999

The Remote Button / Keyboard commands are used when the video output of the FireBall system is displayed on a TV or large screen projector and it is desired to directly select the FireBall control functions through an external control system.

The up, down, left, right, and select functions can be used to navigate objects on the screen and select them. The active FireBall control function is highlighted and the selection cursor is moved over it.

Various other commands are used to mimic the operation of the remote control. Note that the command response will be “OK” as long as the key code is a valid one, even though the system may ignore the key if the system is in a mode where the key would not normally be processed.

Remote Button / Keyboard Commands

COMMAND GROUP	SUB COMMAND NUMBER	COMMAND DESCRIPTION
10	01	Left
10	02	Up
10	03	Right
10	04	Down
10	05	Select
10	06	Move To X and Y Coordinates and Select
10		The upper left point on the screen is (0,0) and the resolution of the screen is 720 by 480 pixels.

10		
10	07	Power Toggle
10	08	Power On
10	09	Power Off
10		
10	10	“0”
10	11	“1”
10	12	“2”
10	13	“3”
10	14	“4”
10	15	“5”
10	16	“6”
10	17	“7”
10	18	“8”
10	19	“9”
10	20	“~”
10	21	“.”
10	22	“/”
10	23	“,”
10	24	“?”
10	25	“@”
10	26	“-“
10	27	“_”
10	28	“*”
10	29	“#”
10	30	Ch/Page +
10	31	Ch/Page -
10	32	Mode Increment – Only works in Player
10	33	Mode Play – Normal – Only works in Player
10	34	Mode Play – Repeat Track – Only works in Player
10	35	Mode Play – Repeat Title – Only works in Player
10	36	Mode Play – Repeat Group – Only works in Player
10	37	Mode Play – Random Title – Only works in Player
10	38	Mode Play – Random Group – Only works in Player
10	39	Setup
10	40	Option
10	41	Guide (toggles between Guide and Player) **
10	42	Guide Explicit (always goes to Guide) **
10	43	Player Explicit (always goes to Player) **
10	44	OpenGlobe
10	45	Info
10	46	Menu (DVD Menu and Guide View Increment)
10	47	Guide View – Covers
10	48	Guide View – Artist
10	49	Guide View – Title
10	50	Guide View - Song

10		
10	51	Play a numbered Playlist (argument has Playlist number)
10	52	Repeat
10	53	Macro
10	54	Play
10	55	Stop
10	56	Pause
10	57	Previous Track
10	58	Next Track
10	59	Record
10		
10	60	Movies
10	61	Music
10	62	iRadio
10	63	Title
10	64	Audio
10	65	Previous
10	66	Next
10	67	Add Favorites
10	68	Play Favorites
10	69	Random
10	70	“ “
10	71	BACKSPACE
10	74	“A”
10	75	“B”
10	76	“C”
10	77	“D”
10	78	“E”
10	79	“F”
10	80	“G”
10	81	“H”
10	82	“I”
10	83	“J”
10	84	“K”
10	85	“L”
10	86	“M”
10	87	“N”
10	88	“O”
10	89	“P”
10	90	“Q”
10	91	“R”
10	92	“S”
10	93	“T”
10	94	“U”
10	95	“V”
10	96	“W”

10	97	"X"
10	98	"Y"
10	99	"Z"

** This command does not function if the Options screen, OpenGlobe CE-Commerce screen, or Playlist Edit screens are displayed.

Command Format: ESCX10**xx**

01 – ESCX10**01**
02 – ESCX10**02**
03 – ESCX10**03**
04 – ESCX10**04**
05 – ESCX10**05**
06 – ESCX10**06**0020003**aaa**0003**bbb**
aaa = X coordinate
bbb = Y coordinate

10 – ESCX10**10**

20 – ESCX10**20**
21 – ESCX10**21**
22 – ESCX10**22**
etc…

51 – ESCX10**51**0010001**x**
x = Playlist number (1 – 6)

All the Database commands are available regardless of the power state, except for Command 05, Play which will return an error response if attempted during standby. The groups, styles, and custom genres are grouped into system groups and user groups. The System Music Groups (sorted by Artist) have groupings such as the All group, CDs group, MP3 group, and Playlists groups. The User Music Groups (sorted by Artist) contain the genres for your music and your custom genres that have been created. The System HardDrive Music Groups (sorted by Artist) are a subset of the System Music Groups (sorted by Artist) and filter out media that does not exist on the hard drive. The User HardDrive Music Groups (sorted by Artist) are a subset of the User Music Groups (sorted by Artist) and also filter out media external to the hard drive. The All radio station group and the NetRadio group are contained in the radio system groups while all other radio stations are in the user groups. Likewise, the All movie group is in the movie system group while all other movie genres are in the user groups. Titles are returned listed in alphabetical order by title regardless of the state of the user interface.

Database Commands

COMMAND GROUP	SUB COMMAND	DESCRIPTION
20	01	Get number of groups (genres) in the database
20		ESCX20010010002**xx** **xx** = which list to get groups from, where

		01 = System Music Groups (sorted by Artist) 02 = User Music Groups (sorted by Artist) 03 = System Radio Groups 04 = User Radio Groups 05 = System Movie Groups 06 = User Movie Groups 07 = System HardDrive Music Groups (sorted by Artist) 08 = User HardDrive Music Groups (sorted by Artist) 81 = System Music Groups (sorted by Title) 82 = User Music Groups (sorted by Title) 87 = System HardDrive Music Groups (sorted by Title) 88 = User HardDrive Music Groups (sorted by Title) 91 = System Music Groups (sorted by Song) 92 = User Music Groups (sorted by Song) 97 = System HardDrive Music Groups (sorted by Song) 98 = User HardDrive Music Groups (sorted by Song) *Reply Format*: ESCX20010010004**xxxx**, Where **xxxx** = total number of groups in the specified list Once the total number of groups is known, you can ask information for a range of groups using the **02** subcommand
20	02	Get group information
20		ESCX20020030002**aa**0004**bbbb**0004**cccc** **aa** = which list to get groups from, where 01 = System Music Groups (sorted by Artist) 02 = User Music Groups (sorted by Artist) 03 = System Radio Groups 04 = User Radio Groups 05 = System Movie Groups 06 = User Movie Groups 07 = System HardDrive Music Groups (sorted by Artist) 08 = User HardDrive Music Groups (sorted by Artist) 81 = System Music Groups (sorted by Title) 82 = User Music Groups (sorted by Title) 87 = System HardDrive Music Groups (sorted by Title) 88 = User HardDrive Music Groups (sorted by Title) 91 = System Music Groups (sorted by Song) 92 = User Music Groups (sorted by Song) 97 = System HardDrive Music Groups (sorted by Song) 98 = User HardDrive Music Groups (sorted by Song) **bbbb** = starting group number **cccc** = ending group number
20		*Reply Format*: ESCX2002**xxx**GROUP1GROUP2etc…, Where **xxx** = total number of groups multiplied by 2, Each group is made up two items so
20		GROUP1 above = **XXXXxxxxYYYYyyyyyyyy** where **XXXX** = length of item #1, by default this is 0003 but may be 0004 if there are more than 999 titles in the group

		xxxx = number of titles in the group **YYYY** = length of item #2 (length of group name) **yyyyyyyy** = group name (length depends on **YYYY**)
		GROUP2, etc… have the same format as GROUP1
20	03	Get title (music or movie) or station (radio) information (includes Playlists because they are virtual CD titles). For groups 91-98 the 'title' is actually the song name and 'title number' is the song number.
20		ESCX20030040002**aa**0004**bbbb**0004**cccc**0004**dddd** **aa** = which list to get groups from, where 01 = System Music Groups (sorted by Artist) 02 = User Music Groups (sorted by Artist) 03 = System Radio Groups 04 = User Radio Groups 05 = System Movie Groups 06 = User Movie Groups 07 = System HardDrive Music Groups (sorted by Artist) 08 = User HardDrive Music Groups (sorted by Artist) 81 = System Music Groups (sorted by Title) 82 = User Music Groups (sorted by Title) 87 = System HardDrive Music Groups (sorted by Title) 88 = User HardDrive Music Groups (sorted by Title) 91 = System Music Groups (sorted by Song) 92 = User Music Groups (sorted by Song) 97 = System HardDrive Music Groups (sorted by Song) 98 = User HardDrive Music Groups (sorted by Song) **bbbb** = group number to get titles for **cccc** = starting title number **dddd** = ending title number
		Reply Format: ESCX2003**xxx**TITLE1TITLE2etc…, Where **xxx** = total number of titles multiplied by 2, Each title is made up of two items so
		TITLE1 above = 0003**xxxyyyyzzzzzzzzzz** 0003 = length of item #1 (always 3) **xxx** = number of tracks in the title for Music, running time of title for Movie, bitrate of station for Radio **yyyy** = length of item #2 (length of title) **zzzzzzzzzz** = music artist-title(or title-artist or song-artist)/movie title/radio station (length depends on **yyyy**)
		TITLE2, etc… have the same format as TITLE1
20		ESCX20030050002**aa**0004**bbbb**0004**cccc**0004**dddd**0002**ff** **aa** = which list to get groups from, where 01 = System Music Groups (sorted by Artist) 02 = User Music Groups (sorted by Artist) 03 = System Radio Groups 04 = User Radio Groups 05 = System Movie Groups 06 = User Movie Groups 07 = System HardDrive Music Groups (sorted by Artist) 08 = User HardDrive Music Groups (sorted by Artist)

		81 = System Music Groups (sorted by Title) 82 = User Music Groups (sorted by Title) 87 = System HardDrive Music Groups (sorted by Title) 88 = User HardDrive Music Groups (sorted by Title) 91 = System Music Groups (sorted by Song) 92 = User Music Groups (sorted by Song) 97 = System HardDrive Music Groups (sorted by Song) 98 = User HardDrive Music Groups (sorted by Song) **bbbb** = group number to get titles for **cccc** = starting title number **dddd** = ending title number **ff** = reply format 00 = Reply format same as above 01 = Reply format separates Title/Artist info (or Song/Artist info)
		Reply Format of '01' is as follows *Reply Formats:* ESCX2003**xxx**INFO1 INFO2 etc…, Where **xxx** = total number of info items multiplied by 3, Each info item is made up of three items so
		INFO1 above = 0003**aaabbbbccccccddddeeeeeee** 0003 = length of item #1 (always 3) **aaa** = number of tracks in the title for Music, running time of title for Movie, bitrate of station for Radio **bbbb** = length of item #2 (length of title) **ccccccc** = title/radio station (length depends on **bbbb**) **dddd** = length of item #3 (length of artist name) **eeeeeee** = artist name for Music (length depends on **dddd**)
		TITLE_ARTIST2, etc… have the same format as TITLE_ARTIST1
20	04	Get track information
20		ESCX20040050002**aa**0004**bbbb**0004**cccc**0004**dddd**0004**eeee**
		aa = which list to get groups from, where 01 = System Music Groups (sorted by Artist) 02 = User Music Groups (sorted by Artist) 07 = System HardDrive Music Groups (sorted by Artist) 08 = User HardDrive Music Groups (sorted by Artist) 81 = System Music Groups (sorted by Title) 82 = User Music Groups (sorted by Title) 87 = System HardDrive Music Groups (sorted by Title) 88 = User HardDrive Music Groups (sorted by Title) 91 = System Music Groups (sorted by Song) 92 = User Music Groups (sorted by Song) 97 = System HardDrive Music Groups (sorted by Song) 98 = User HardDrive Music Groups (sorted by Song) **bbbb** = group number to get tracks for **cccc** = title number to get tracks for (ignored if sorted by Song) **dddd** = starting track number **eeee** = ending track number
		Reply Format: ESCX2004**xxx**TRACK1TRACK2etc…, Where **xxx** = total number of tracks, Each TRACK is made of one item so:

		TRACK1 = **yyyyzzzzzzz** **yyyy** = length of track name **zzzzzzz** = track name (length depends on **yyyy**) TRACK2, etc… have the same format as TRACK1
20		ESCX20040060002**aa**0004**bbbb**0004**cccc**0004**dddd**0004**eeee**0002**ff**
		aa = which list to get groups from, where 01 = System Music Groups (sorted by Artist) 02 = User Music Groups (sorted by Artist) 07 = System HardDrive Music Groups (sorted by Artist) 08 = User HardDrive Music Groups (sorted by Artist) 81 = System Music Groups (sorted by Title) 82 = User Music Groups (sorted by Title) 87 = System HardDrive Music Groups (sorted by Title) 88 = User HardDrive Music Groups (sorted by Title) 91 = System Music Groups (sorted by Song) 92 = User Music Groups (sorted by Song) 97 = System HardDrive Music Groups (sorted by Song) 98 = User HardDrive Music Groups (sorted by Song) **bbbb** = group number to get tracks for **cccc** = title number to get tracks for (ignored if sorted by Song) **dddd** = starting track number **eeee** = ending track number **ff** = reply format 00 = Reply format uses track names (same as above) 01 = Reply format uses file urls 02 = Reply format uses detailed track info
		Reply Formats of '00' and '01' are as follows *Reply Format*: ESCX2004**xxx**TRACK1INFOTRACK2INFOetc…, Where **xxx** = total number of tracks, Each TRACK is made of one item so: TRACK1INFO = **yyyyzzzzzzz** **yyyy** = length of track info **zzzzzzz** = track info (length depends on **yyyy**) TRACK2INFO, etc… have the same format as TRACK1INFO *Reply Format of '02' is as follows* *Reply Format*: ESCX2004**xxx**TRACK1INFOTRACK2INFOetc…, Where **xxx** = total number of tracks multiplied by 4 Each TRACK is made of four items so: TRACK1INFO = **xxxxXXXXXXXyyyyYYYYYYYzzzzZZZZaaaaAAAA** **xxxx** = length of track name **XXXXXXX** = track name (length depends on **xxxx**) **yyyy** = length of track url **YYYYYYY** = track url (length depends on **yyyy**) **zzzz** = length of track bitrate **ZZZZ** = track bitrate (length depends on **zzzz**) **aaaa** = length of track length **AAAA** = track length in seconds (length depends on **aaaa**)

		TRACK2INFO, etc… have the same format as TRACK1INFO
20	05	Play music track/radio station/Playlist
20		ESCX20050040002**aa**0004**bbbb**0004**cccc**0004**dddd** **aa** = which database to get groups from, where 01 = System Music Groups (sorted by Artist) 02 = User Music Groups (sorted by Artist) 03 = System Radio Groups 04 = User Radio Groups (allow direct play of movies even though we don't track actual number of chapters) 05 = System Movie Groups 06 = User Movie Groups 07 = System HardDrive Music Groups (sorted by Artist) 08 = User HardDrive Music Groups (sorted by Artist) 81 = System Music Groups (sorted by Title) 82 = User Music Groups (sorted by Title) 87 = System HardDrive Music Groups (sorted by Title) 88 = User HardDrive Music Groups (sorted by Title) 91 = System Music Groups (sorted by Song) 92 = User Music Groups (sorted by Song) 97 = System HardDrive Music Groups (sorted by Song) 98 = User HardDrive Music Groups (sorted by Song) **bbbb** = group number **cccc** = title/station number (song number if sorted by Song) **dddd** = track number (ignored for Radio and Music sorted by Song)
20	06	Get group number for a specific music, radio, or movie genre by name.
20		ESCX20060020002**aaBBBBbbbbbbbb** **aa** = which list to get groups from, where 01 = System Music Groups (sorted by Artist) 02 = User Music Groups (sorted by Artist) 03 = System Radio Groups 04 = User Radio Groups 05 = System Movie Groups 06 = User Movie Groups 07 = System HardDrive Music Groups (sorted by Artist) 08 = User HardDrive Music Groups (sorted by Artist) 81 = System Music Groups (sorted by Title) 82 = User Music Groups (sorted by Title) 87 = System HardDrive Music Groups (sorted by Title) 88 = User HardDrive Music Groups (sorted by Title) 91 = System Music Groups (sorted by Song) 92 = User Music Groups (sorted by Song) 97 = System HardDrive Music Groups (sorted by Song) 98 = User HardDrive Music Groups (sorted by Song) **BBBB** = length of the group name **bbbbbbbb** = which group you want the number for
20		01 – System Music group name examples are: All, Playlists, CDs, MP3s

20		02 –User Music group name examples are: Blues/Folk Classical Country Dance Easy Listening Family HipHop-Rap Jazz Latin New Age Other Pop R&B/Soul Rock Soundtracks
20		03 – System iRadio group name examples are: All, NetRadio
20		04 – User iRadio group name examples are: Alternative Classic Rock Classical Country Eclectic Hip Hop Holiday International Jazz New Age Oldies R&B Religious Soft Rock News/Talk Top 40 Rock Other
20		*Reply Format*: ESCX20060010004**xxxx**, Where **xxxx** = group number for the group specified by aaaa
20		Once group number is known, use the **02** subcommand for info.
20	07	Get title (music or movie) or station (radio) information by name (includes Playlists also, because they are virtual CD titles). Partial strings can be used. Case does not matter. For groups 91-98 the 'title' is actually the song name and 'title number' is the song number.
20		ESCX20070030002**aa**0004**bbbbccccdddd** **aa** = which list to get groups from, where 01 = System Music Groups (sorted by Artist) 02 = User Music Groups (sorted by Artist) 03 = System Radio Groups

		04 = User Radio Groups 05 = System Movie Groups 06 = User Movie Groups 07 = System HardDrive Music Groups (sorted by Artist) 08 = User HardDrive Music Groups (sorted by Artist) 81 = System Music Groups (sorted by Title) 82 = User Music Groups (sorted by Title) 87 = System HardDrive Music Groups (sorted by Title) 88 = User HardDrive Music Groups (sorted by Title) 91 = System Music Groups (sorted by Song) 92 = User Music Groups (sorted by Song) 97 = System HardDrive Music Groups (sorted by Song) 98 = User HardDrive Music Groups (sorted by Song) **bbbb** = group number to get title for **cccc** = length of the title/station/Playlist name **dddd** = name of title/station/Playlist you want the number for
		Reply Format: ESCX2007**xxx**TITLE1TITLE2etc…, Where **xxx** = total number of titles/station/Playlists that match Multiplied by 2, each title is made up of two items so
		TITLE1 above = 0003**xxx**0004**yyyy** 0003 = length of item #1 (always 3) **xxx** = number of tracks in the title for Music, running time of title for Movie, bitrate of station for Radio 0004 = length of item #2 (always 4) **zzzz** = title/station number
		Most likely only one title will be returned for this command, however if you have duplicate titles, TITLE2, etc… have the same format as TITLE1
		Once the title/station/Playlist number and the number of tracks are known you can use the 04 – Get track information command or the 05 – Play music track/radio station/Playlist command.
20	08	Get title (music or movie) or station (radio) cover art (includes Playlists because they are virtual CD titles)
20		ESCX20080040002**aa**0004**bbbb**0004**cccc**0004**dddd** **aa** = which list to get groups from, where 01 = System Music Groups (sorted by Artist) 02 = User Music Groups (sorted by Artist) 03 = System Radio Groups 04 = User Radio Groups 05 = System Movie Groups 06 = User Movie Groups 07 = System HardDrive Music Groups (sorted by Artist) 08 = User HardDrive Music Groups (sorted by Artist) 81 = System Music Groups (sorted by Title) 82 = User Music Groups (sorted by Title) 87 = System HardDrive Music Groups (sorted by Title) 88 = User HardDrive Music Groups (sorted by Title) 91 = System Music Groups (sorted by Song) 92 = User Music Groups (sorted by Song)

		97 = System HardDrive Music Groups (sorted by Song) 98 = User HardDrive Music Groups (sorted by Song) **bbbb** = group number to get titles for **cccc** = starting title number **dddd** = ending title number
		Reply Format: ESCX2008**xxx**TITLE1TITLE2etc…, Where **xxx** = total number of titles Each title is made up of one item so
		TITLE1 above = **xxxxyyyyyyyyyy** **xxxx** = length of cover art url **yyyyyyyyyy** = cover art url
		TITLE2, etc… have the same format as TITLE1
20	09	Get title (music or movie) or station (radio) detailed information (includes Playlists because they are virtual CD titles)
20		ESCX20090040002**aa**0004**bbbb**0004**cccc**0004**dddd** **aa** = which list to get groups from, where 01 = System Music Groups (sorted by Artist) 02 = User Music Groups (sorted by Artist) 03 = System Radio Groups 04 = User Radio Groups 05 = System Movie Groups 06 = User Movie Groups 07 = System HardDrive Music Groups (sorted by Artist) 08 = User HardDrive Music Groups (sorted by Artist) 81 = System Music Groups (sorted by Title) 82 = User Music Groups (sorted by Title) 87 = System HardDrive Music Groups (sorted by Title) 88 = User HardDrive Music Groups (sorted by Title) 91 = System Music Groups (sorted by Song) 92 = User Music Groups (sorted by Song) 97 = System HardDrive Music Groups (sorted by Song) 98 = User HardDrive Music Groups (sorted by Song) **bbbb** = group number to get titles for **cccc** = starting title number **dddd** = ending title number
		Reply Format: ESCX2009**xxx**TITLE1TITLE2etc…, Where **xxx** = total number of titles multiplied by 2, Each title is made up of two or four items so
		For Music and Radio, TITLE1 above = **xxxxXXXXyyyyYYYY** **xxxx** = length of item #1 (length of year/channels) **XXXX** = year of title for Music, audio channels for Radio (length depends on **xxxx**) **yyyy** = length of item #2 (length of label/location) **YYYY** = record label for Music, station location for Radio (length depends on **yyyy**)
		For Movies, TITLE1 above = **wwwwWWWWxxxxXXXXyyyyYYYYzzzzZZZZ** **wwww** = length of item #1 (length of year)

		WWWW = year of title for Movies (length depends on **wwww)** **xxxx** = length of item #2 (length of rating) **XXXX** = rating of title for Movies (length depends on **xxxx**) **yyyy** = length of item #3 (length of cast) **YYYY** = cast list of title for Movies (length depends on **yyyy**) **zzzz** = length of item #4 (length of description) **ZZZ** = description of title for Movies (length depends on **zzzz**)
		TITLE2, etc… have the same format as TITLE1
20		ESCX20090050002**aa**0004**bbbb**0004**cccc**0004**dddd**0002**ee** **aa** = which list to get groups from, where 01 = System Music Groups (sorted by Artist) 02 = User Music Groups (sorted by Artist) 03 = System Radio Groups 04 = User Radio Groups 05 = System Movie Groups 06 = User Movie Groups 07 = System HardDrive Music Groups (sorted by Artist) 08 = User HardDrive Music Groups (sorted by Artist) 81 = System Music Groups (sorted by Title) 82 = User Music Groups (sorted by Title) 87 = System HardDrive Music Groups (sorted by Title) 88 = User HardDrive Music Groups (sorted by Title) 91 = System Music Groups (sorted by Song) 92 = User Music Groups (sorted by Song) 97 = System HardDrive Music Groups (sorted by Song) 98 = User HardDrive Music Groups (sorted by Song) **bbbb** = group number to get titles for **cccc** = starting title number **dddd** = ending title number **ee** = reply format 00 = same response as above 01 = return year, label, title, artist, number of tracks, total length, genre and coveart url (Music only, Radio and Movies will have same response as above)
		Reply Formats "01' for Music is as follows: *Reply Format*: ESCX2009**xxx**TITLE1TITLE2etc…, Where **xxx** = total number of titles multiplied by 8: **NOTE:** this implies a limit of 124 items since 8*125 > 999 Each title is made up of eight items so
		TITLE1 above = **ssssSSSSttttTTTTuuuuUUUUvvvvVVVVwwwwWWWWxxxxXXXXyyyyYYYYzzzzZZZZ** **ssss** = length of item #1 (length of year) **SSSS** = year of title (length depends on **ssss**) **tttt** = length of item #2 (length of label) **TTTT** = record label (length depends on **tttt**) **uuuu** = length of item #3 (length of title) **UUUU** = record title (length depends on **uuuu**)

		vvvv = length of item #4 (length of artist) **VVVV** = record artist (length depends on **vvvv**) **wwww** = length of item #5 (number of tracks) **WWWW** = total number of tracks (length depends on **wwww**) **xxxx** = length of item #6 (length of total music length in minutes) **XXXX** = total length all tracks in seconds (length depends on **xxxx**) **yyyy** = length of item #7 (length of genre) **YYYY** = record genre (length depends on **yyyy**) **zzzz** = length of item #8 (length of coverart url) **ZZZZ** = record coverart url (length depends on **zzzz**)
		TITLE2, etc… have the same format as TITLE1
20	10	Get group names
20		ESCX20100030002**aa**0004**bbbb**0004**cccc** **aa** = which list to get groups from, where 01 = System Music Groups (sorted by Artist) 02 = User Music Groups (sorted by Artist) 03 = System Radio Groups 04 = User Radio Groups 05 = System Movie Groups 06 = User Movie Groups 07 = System HardDrive Music Groups (sorted by Artist) 08 = User HardDrive Music Groups (sorted by Artist) 81 = System Music Groups (sorted by Title) 82 = User Music Groups (sorted by Title) 87 = System HardDrive Music Groups (sorted by Title) 88 = User HardDrive Music Groups (sorted by Title) 91 = System Music Groups (sorted by Song) 92 = User Music Groups (sorted by Song) 97 = System HardDrive Music Groups (sorted by Song) 98 = User HardDrive Music Groups (sorted by Song) **bbbb** = starting group number **cccc** = ending group number
20		*Reply Format*: ESCX2010**xxx**GROUP1GROUP2etc…, Where **xxx** = total number of groups. If the starting group number and ending group number are both equal to zero, all groups in the list are returned. Each group is made up of one item so
20		GROUP1 above = **xxxxyyyyyyyy** where **xxxx** = length of group name **yyyyyyyy** = group name (length depends on **xxxx**)
20	11	Change music playlist name
20		ESCX20110020004**aaaabbbbcccccccc** **aaaa** = which playlist to rename (number in System Music's Playlists group) **bbbb** = length of new playlist name **cccc** = new name of the playlist
		ESCX20110030004**aaaabbbbcccccccc**0002**dd** **aaaa** = which playlist to rename (number in the indicated groupings Playlists group)

		bbbb = length of new playlist name **cccc** = new name of the playlist **dd** = which group the Playlist is from, where 01 = System Music Groups (sorted by Artist) (same as above) 07 = System HardDrive Music Groups (sorted by Artist) 81 = System Music Groups (sorted by Title) 87 = System HardDrive Music Groups (sorted by Title) 91 = System Music Groups (sorted by Song) 97 = System HardDrive Music Groups (sorted by Song)
20	12	Delete music playlist
		ESCX20120010004**aaaa** **aaaa** = which playlist to delete (number in System Music's Playlists group)
		ESCX20120020004**aaaa**0002**bb** **aaaa** = which playlist to delete (number in the indicated groupings Playlists group) **bb** = which group the Playlist is from, where 01 = System Music Groups (sorted by Artist) (same as above) 07 = System HardDrive Music Groups (sorted by Artist) 81 = System Music Groups (sorted by Title) 87 = System HardDrive Music Groups (sorted by Title) 91 = System Music Groups (sorted by Song) 97 = System HardDrive Music Groups (sorted by Song)
20	13	Add music track to the Favorites playlist
20		ESCX20130040002**aa**0004**bbbb**0004**cccc**0004**dddd** **aa** = which list to get groups from, where 01 = System Music Groups (sorted by Artist) 02 = User Music Groups (sorted by Artist) 07 = System HardDrive Music Groups (sorted by Artist) 08 = User HardDrive Music Groups (sorted by Artist) 81 = System Music Groups (sorted by Title) 82 = User Music Groups (sorted by Title) 87 = System HardDrive Music Groups (sorted by Title) 88 = User HardDrive Music Groups (sorted by Title) 91 = System Music Groups (sorted by Song) 92 = User Music Groups (sorted by Song) 97 = System HardDrive Music Groups (sorted by Song) 98 = User HardDrive Music Groups (sorted by Song) **bbbb** = group number **cccc** = title/station number (song number if sorted by Song) **dddd** = track number (ignored if sorted by Song)
20	14	Add music track to a playlist
20		ESCX20140050004**aaaa**0002**bb**0004**cccc**0004**dddd**0004**eeee** **aaaa** = which playlist to change (number in the Playlists group) **bb** = which list to get groups from, where 01 = System Music Groups (sorted by Artist) 02 = User Music Groups (sorted by Artist) 07 = System HardDrive Music Groups (sorted by Artist)

		08 = User HardDrive Music Groups (sorted by Artist) 81 = System Music Groups (sorted by Title) 82 = User Music Groups (sorted by Title) 87 = System HardDrive Music Groups (sorted by Title) 88 = User HardDrive Music Groups (sorted by Title) 91 = System Music Groups (sorted by Song) 92 = User Music Groups (sorted by Song) 97 = System HardDrive Music Groups (sorted by Song) 98 = User HardDrive Music Groups (sorted by Song) **cccc** = group number **dddd** = title/station number (song number if sorted by Song) **eeee** = track number (ignored if sorted by Song)
20	15	Delete music track from a playlist
20		ESCX20150030004**aaaa**0002**bb**0004**cccc** **aaaa** = which playlist to change (number in the Playlists group, which indicates both the playlist and the track if sorted by Song) **bb** = which list to get Playlist group from, where 01 = System Music Groups (sorted by Artist) 07 = System HardDrive Music Groups (sorted by Artist) 81 = System Music Groups (sorted by Title) 87 = System HardDrive Music Groups (sorted by Title) 91 = System Music Groups (sorted by Song) 97 = System HardDrive Music Groups (sorted by Song) **cccc** = track number (ignored if sorted by Song)
20	16	Create a new empty playlist
20		ESCX2016001**aaaabbbbbbbb** **aaaa** = length of name of the new playlist **bbbb** = name of the new playlist
20	17	Generate a list of random tracks from a group
20		ESCX20170050002**aa**0004**bbbb**0004**cccc**0004**dddd**0004**eeee**
		aa = which list to get groups from, where 91 = System Music Groups (sorted by Song) 92 = User Music Groups (sorted by Song) 97 = System HardDrive Music Groups (sorted by Song) 98 = User HardDrive Music Groups (sorted by Song) **bbbb** = group number to get tracks for **cccc** = starting track number (if 0, assume first track in group) **dddd** = ending track number (if 0, assume last track in group) **eeee** = max number of tracks to be returned
		Reply Format: ESCX2017**xxx**TRACK1INFOTRACK2INFOetc…, Where **xxx** = total number of tracks multiplied by 2, Each TRACK is made of two items so: TRACK1INFO = **wwwwxxxxyyyyzzzzzzz** **wwww** = length of track number

		xxxx = track number within the indicated group **yyyy** = length of track info **zzzzzzz** = track info (length depends on **yyyy**) TRACK2INFO, etc… have the same format as TRACK1INFO
20		ESCX20170060002**aa**0004**bbbb**0004**cccc**0004**dddd**0004**eeee**0002**ff**
		aa = which list to get groups from, where 91 = System Music Groups (sorted by Song) 92 = User Music Groups (sorted by Song) 97 = System HardDrive Music Groups (sorted by Song) 98 = User HardDrive Music Groups (sorted by Song) **bbbb** = group number to get tracks for **cccc** = starting track number (if 0, assume first track in group) **dddd** = ending track number (if 0, assume last track in group) **eeee** = max number of tracks to be returned **ff** = reply format 00 = Reply format uses track names (same as above) 01 = Reply format uses file urls 02 = Reply format uses detailed track info
		Reply Formats of '00' and '01' are as follows *Reply Format*: ESCX2017**xxx**TRACK1INFOTRACK2INFOetc…, Where **xxx** = total number of tracks multiplied by 2, Each TRACK is made of two items so: TRACK1INFO = **wwwwxxxxyyyyzzzzzzz** **wwww** = length of track number **xxxx** = track number within the indicated group **yyyy** = length of track info **zzzzzzz** = track info (length depends on **yyyy**) TRACK2INFO, etc… have the same format as TRACK1INFO *Reply Format of '02' is as follows* *Reply Format*: ESCX2017**xxx**TRACK1INFOTRACK2INFOetc…, Where **xxx** = total number of tracks multiplied by 5 Each TRACK is made of five items so: TRACK1INFO = **wwwwWWWWxxxxXXXXXXXyyyyYYYYYYYzzzzZZZZaaaaAAAA** **wwww** = length of track number **WWWW** = track number within the indicated group **xxxx** = length of track name **XXXXXXX** = track name (length depends on **xxxx**) **yyyy** = length of track url **YYYYYYY** = track url (length depends on **yyyy**) **zzzz** = length of track bitrate **ZZZZ** = track bitrate (length depends on **zzzz**) **aaaa** = length of track length **AAAA** = track length in seconds (length depends on **aaaa**) TRACK2INFO, etc… have the same format as TRACK1INFO

		Upon receiving the response, the track number within the group can be used in an ESCX2009 query to retrieve details about the track, including the year, label, title, artist, number of tracks, total length, genre and coveart url.

Status Commands

COMMAND GROUP	SUB COMMAND	DESCRIPTION
50	01	Get power state
50		*Reply Format*: ESCX50010010003**xxx**, Where **xxx** = a 3 character string "ON " if power on "OFF" if power is off (standby mode)
50	02	Get music play mode
50		*Reply Format*: ESCX50020010002**xx**, Where **xx** = music play mode, where 01 = normal 02 = repeat track 03 = repeat title 04 = repeat group 05 = random title 06 = random group
50	03	Get sort order [possible future implementation]
50		*Reply Format*: ESCX50030010002**xx**, Where **xx** = guide sort order, where 01 = by artist 02 = by title 03 = by song
50	04	Get current playing title (music or movie) or station (radio) information
50		*Reply Format*: ESCX5004007**aaaabb**0004**cccc**0003**ddd**0002**ee**0002**ff**0004**gggg**0004**hhhh** **aaaa** = length of the title/station that is playing **bb** = title/station name (length depends on **aaaa**) **cccc** = number of the playing title/station in the All group **ddd** = number of the playing track (000 for movie and radio) **ee** = current media type 00 = unknown, 01 = CD, 02 = DATACD, 03 = MP3, 04 = playlist, 05 = DVD, 06 = radio **ff** = current group type (which list to get groups from) 01 = System Music Groups (sorted by Artist) 02 = User Music Groups (sorted by Artist) **gggg** = current group number **hhhh** = current title number
50	05	Get current screen that is displayed in the GUI [possible future implementation]

50		*Reply Format*: ESCX50050010002**xx**, Where **xx** = current GUI screen, where 01 = guide 02 = player 03 = options 04 = configuration

Control Commands

COMMAND GROUP	SUB COMMAND	DESCRIPTION
70	01	Select guide source
70		ESCX70010010002**xx** **xx** = guide source, where 01 = Music 02 = iRadio 03 = Movies
70	02	Register for unsolicited events (by default you are registered to receive the unsolicited events for level 5)
70		ESCX70**02** ESCX70**02**0010002**xx** **xx =** event level, where 05 = All events except 1-second updates while playing 10 = All level 5 events, plus one-second track playing time updates during music play If the short version of the command is used, event level 5 will be used as the default level.
70	03	Unregister for unsolicited events (prevent unsolicited events)
70		ESCX70**03**
70	04	Set Music Play Mode
70		ESCX70040010002**xx** **xx** = music play mode, where 01 = normal 02 = repeat track 03 = repeat title 04 = repeat group 05 = random title 06 = random group
70	05	Change guide view
70		ESCX70**05**0010002**xx** **xx** = guide view, where 01 = Artist View (music) or Title View (movies) 02 = Title View (music only) 03 = Song View (music only) 04 = Cover View (music and movies)
70	06	Lock this control interface (enter password protected mode)
70		ESCX70**06**

70	07	Unlock this control interface (leave password protected mode)
70		ESCX70**07**001**aaaabbbb** **aaaa** = length of security password **bbbb** = security password

Note that when the host is in power standby mode, any command will cause the unit to enter the power on mode before executing the command. There are two exceptions to this: a client may register and unregister for unsolicited events without turning the host on, and the Status Command “Get Power State” (ESCX5001) will return the current state of the unit without turning it on.

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PC Integration

A Guide to Using FireBall with Windows XP

PRODUCTS FOR THE HUMAN INTERFACE.

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FireBall to PC Networking Basics

Overview

With the new Network File Sharing feature built into FireBall, you can now access your FireBall from your PC using your home network. Having access to your FireBall allows you to do things like backup your music files, import music files from your PC to your FireBall, remotely control your FireBall from your PC, and share your FireBall based music with iTunes (including Apple iPod support) and other PC music players such as Windows Media Player, MusicMatch, WinAmp, and Rio Media Manager. This document will explain how to do all of these things using your PC and your FireBall over your home network.

Requirements

In order to connect to your FireBall, you will need to have your FireBall and PC on the same network. This document assumes that you already have a home network correctly setup and configured. If you need help setting up your network, please review the *"Home Network Primer*" available on the Escient web site, or contact your Escient dealer.

The following items are required for connecting your PC to your FireBall:

- Properly configured Ethernet home network
- Fireball E2 Music Manager or DVDM Media Manager with and internal hard drive and File Sharing Support
- PC computer with 64MB of RAM and Windows XP Installed
- iTunes 4.5 or later (or other PC music player applications)

Connecting to Your FireBall

FireBall uses a type of file server commonly called “Windows Networking” or “CIFS/SMB”. CIFS/SMB networking is found in most Microsoft operating systems and allows PCs to connect and share files over a network.

Setting up the FireBall Server

Before you can connect to your FireBall you must configure FireBall’s server settings. Follow these steps to configure your FireBall server:

1. Using your FireBall remote, press **SETUP** to display the Setup Menu.
2. Select the **NETWORK** menu item.
3. Select the **SERVER SETTINGS** menu item to display the Server Settings screen.
4. Enter a name for your FireBall using the remote or keyboard. Do not use spaces in the name.
5. Select the **SAVE** button to save your settings.
6. Press **SETUP** again to exit the Setup menus.

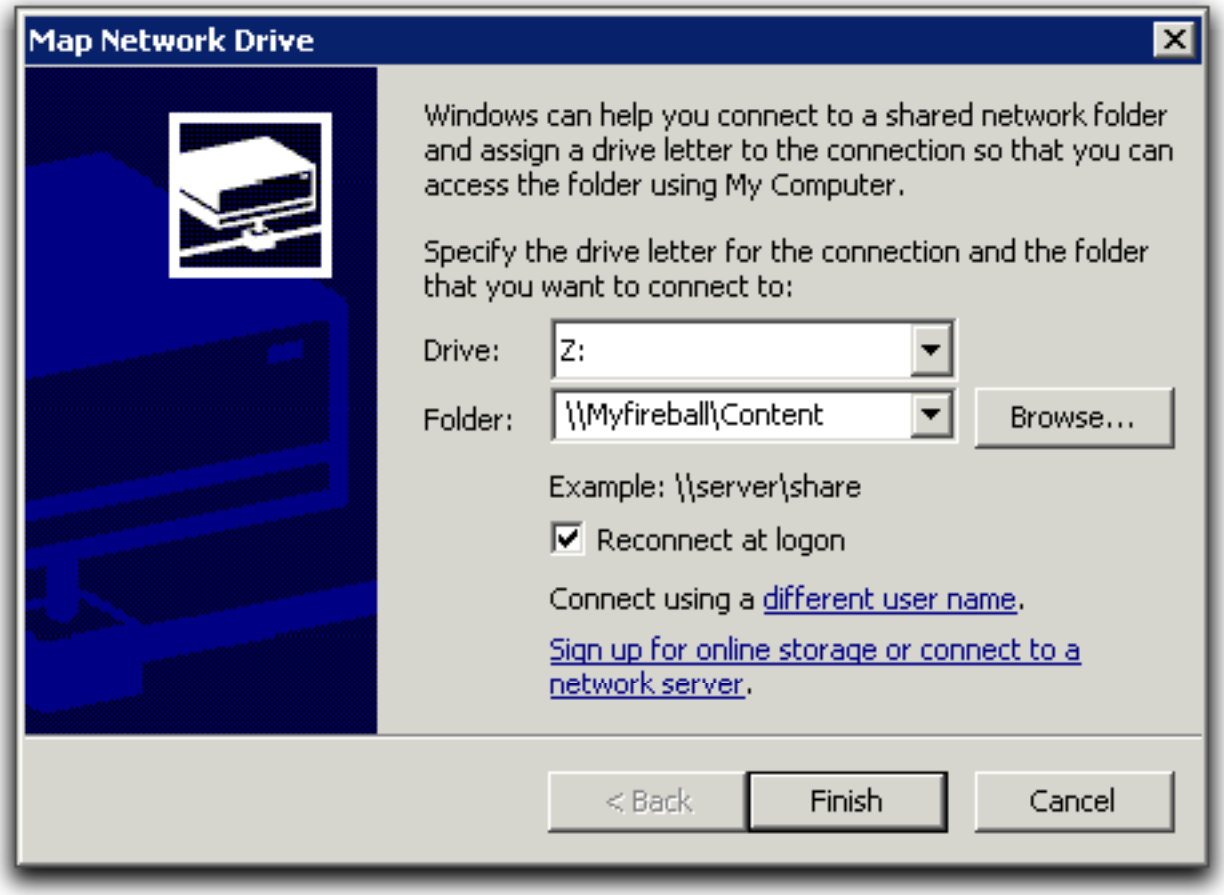
SERVER SETTINGS
Enter a name for your FireBall server. This is the name you will see when seleting a server from FireBall-MP players, wireless web pads and web browsers.
FireBall name:
MyFireBall
Enter a password to limit access to FireBall's built-in web server or leave it blank if you do not want to use a password. There is no 'user name' when connecting to a FireBall server using a web browser.
Web Password:
help
cancel
save

Server Settings screen

Mount Your FireBall on your PC

To mount your FireBall's **CONTENT** volume which contains all of your music files, right click on "My Computer" and select "Map Network Drive" from your PC. Choose an available drive letter, then type in the name of your FireBall.

Example: suppose you named your FireBall "MyFireBall" in the Server Settings screen, you would then enter **\\MyFireBall\Content** in the Folder name, and click Finish.


Map Network Drive
Windows can help you connect to a shared network folder and assign a drive letter to the connection so that you can access the folder using My Computer.
Specify the drive letter for the connection and the folder that you want to connect to:
Drive:
Z:
Folder:
\\Myfireball\Content
Browse...
Example: \\server\share
Reconnect at logon
Connect using a different user name.
Sign up for online storage or connect to a network server.
< Back
Finish
Cancel

Your FireBall's CONTENT volume will now be accessible to any application on your PC and will appear as another mounted volume in the Windows Explorer.

Backing Up Your FireBall

Once you have successfully mounted your FireBall's Content volume on your PC, you now have access to the music content contain on the FireBall's internal hard drive. Having this access affords you the opportunity to backup your FireBall's music collection. There are many ways to backup the music files including copying files to another drive mounted on your PC or using third party backup software to perform automated backups each night.

Note: Playlists, Internet Radio Stations, and System Settings are not backed up. Only the actual music files are available for backup within the Content volume mounted on your PC Desktop.

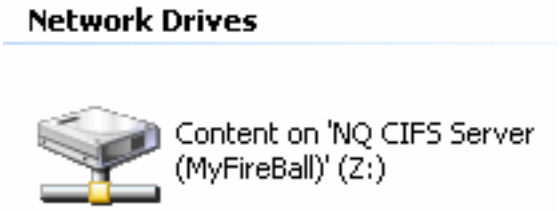
One Time Backup

If you are only going to make a one time backup of the FireBall for safe keeping, it is recommended to do a simple drag and drop of the Content volume to another hard drive or volume mounted on your PC. This one time backup method is useful if your FireBall music collection is not going to change much from day to day and you simply want to preserve a copy as a failsafe to some catastrophic event such as theft, loss by fire, or hard drive crash. This is typically done by an installer or dealer who wants to keep an offsite copy of the installed FireBall for safety reasons.

Escient recommends that a 300 GB external USB drive be used for each full FireBall backup and stored in a different physical location from the FireBall to reduce the possibility of loosing both the FireBall and the Backup Drive in a single catastrophic event.

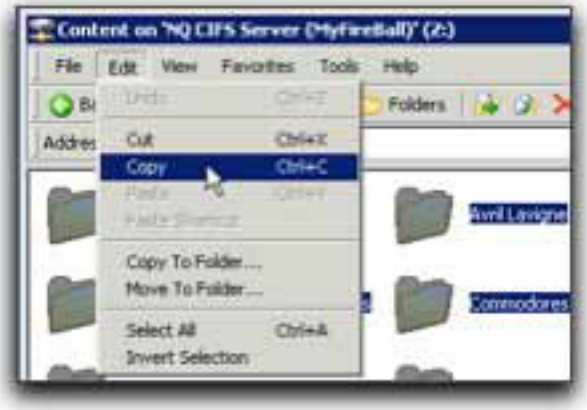
Follow these steps to backup all music files from your FireBall to an external hard drive connected to your PC.

1. **Locate the CONTENT volume** in Explorer given the drive letter you assigned to it.



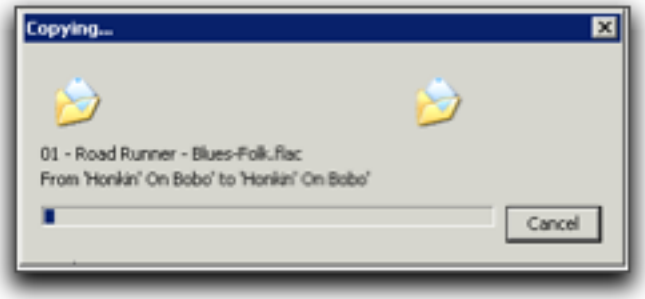
2. Open the CONTENT volume, choose **Select All** from the edit menu to select all of the files and folders in the CONTENT volume.

3. While all the items on the Content volume are highlighted, select COPY from the Edit Menu.



4. Go to your Backup drive and choose PASTE from the Edit Menu.

5. All of the items in the current selection will now be copied to the backup drive. Depending on the size of your music collection, this may take a while to complete. The FireBall will transfer about 5GB of data per hour (120GB a day). At this rate, it will take approximately 2 and a half days to backup an entire 300 GB drive over an Ethernet connection.



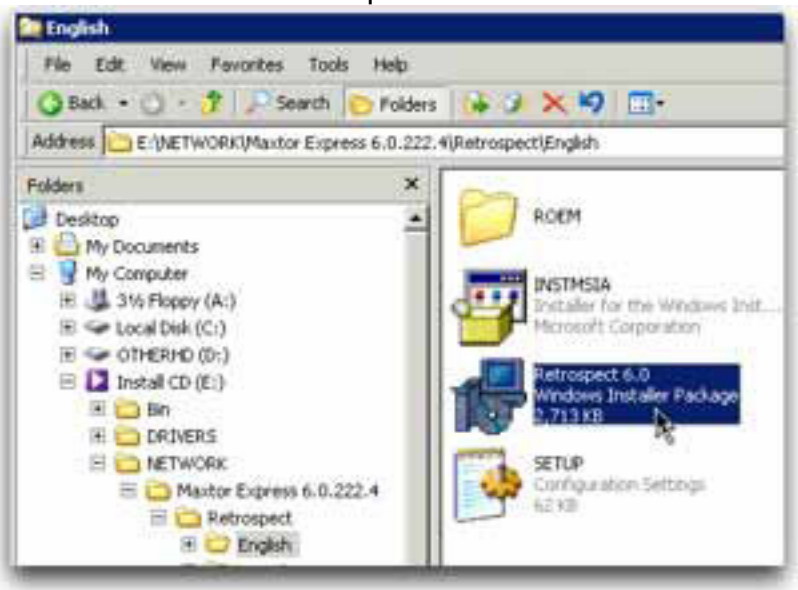
Automated Backups

If you are going to add new music or edit the contents of your FireBall frequently, it is recommended to setup an automated backup system. This type of backup requires the **FireBall Backup Kit** (available from your Escient dealer) and a computer that can access your FireBall over the network. Each night the contents of your FireBall that have been added, deleted, or edited will be copied to the backup folder on your computer. The backup software manages which files have changed compared to what is in the backup folder and copies only those files which have changed, keeping the FireBall's CONTENT volume in sync with a duplicate volume.

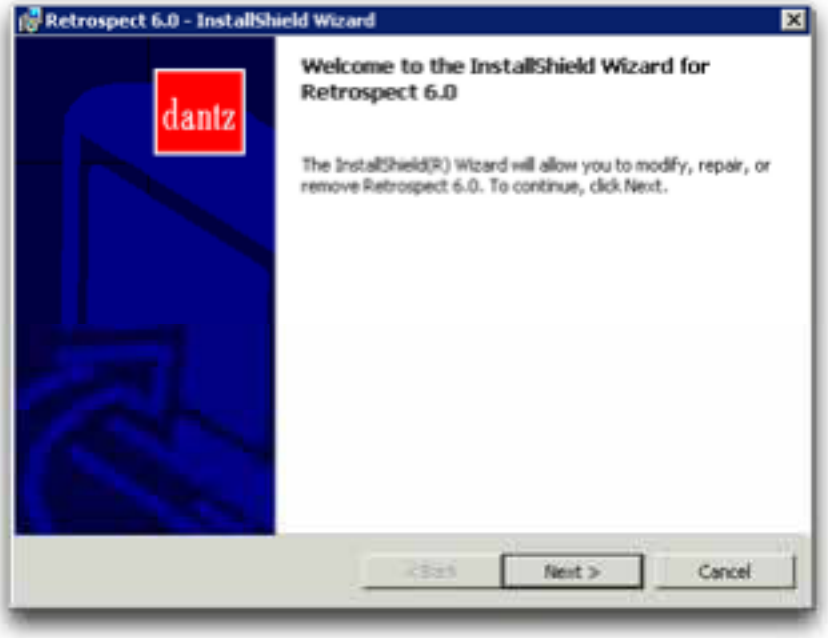
Installing the Retrospect Backup Software

The Escient "**FireBall Backup Kit**" makes backup easy by using the included Retrospect backup software. Follow these steps to install the Retrospect backup software onto your PC.

1. Insert the Maxtor installation CD into your PC's CD-Rom drive. After a few seconds, the Maxtor Select Language screen will appear.
2. Select the EXIT button to quit the installer. Do not use the automatic installer to install Retrospect.
3. Use the Explorer and browse to the Retrospect –English directory at: My Computer/Install CD/NETWORK/Maxtor Express 6.0/Retrospect/English
4. Double-click the Retrospect 6.0 Installer icon.



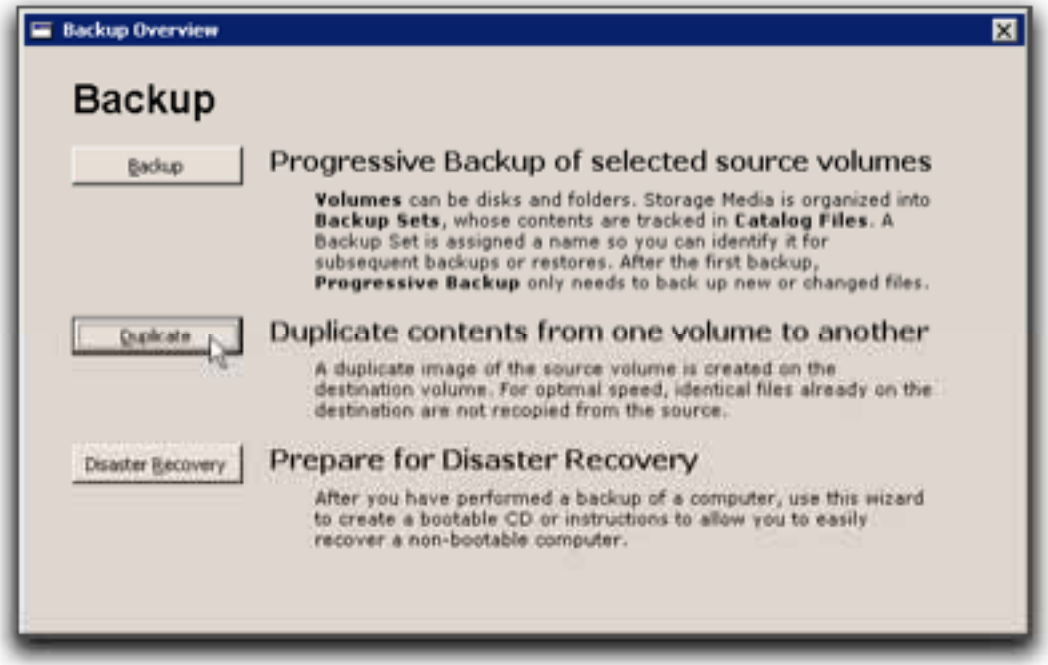
5. Follow the on screen instructions to install the Retrospect software.


Retrospect 6.0 - InstallShield Wizard
dantz
Welcome to the InstallShield Wizard for Retrospect 6.0
The InstallShield(R) Wizard will allow you to modify, repair, or remove Retrospect 6.0. To continue, click Next.
< Back
Next >
Cancel

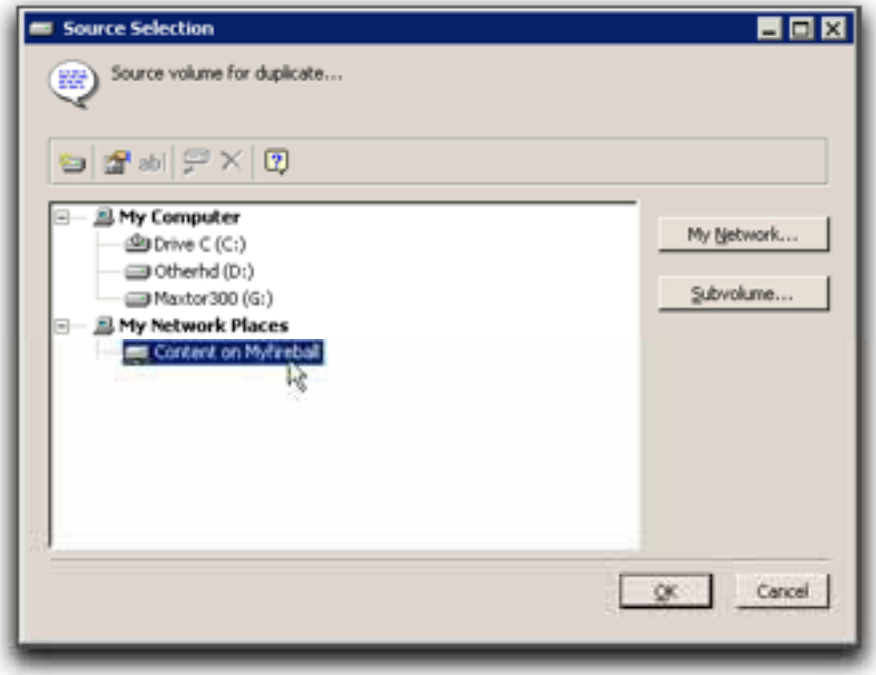
Backing Up Your FireBall Every Night with Retrospect

1. Follow the instructions above for installing the Retrospect 6.0 software and connecting the external hard drive.
2. **Mount** your FireBall's **CONTENT** volume (see above for instructions)
3. Launch Retrospect 6.0

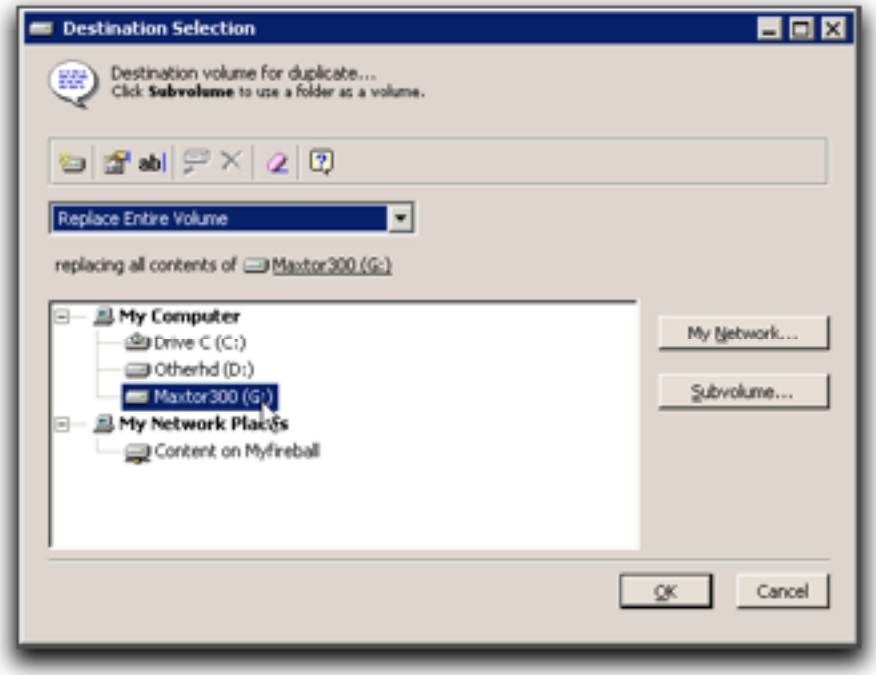
4. Select the **Duplicate** button.


Backup Overview
Backup
Backup
Progressive Backup of selected source volumes
Volumes can be disks and folders. Storage Media is organized into Backup Sets, whose contents are tracked in Catalog Files. A Backup Set is assigned a name so you can identify it for subsequent backups or restores. After the first backup, Progressive Backup only needs to back up new or changed files.
Duplicate
Duplicate contents from one volume to another
A duplicate image of the source volume is created on the destination volume. For optimal speed, identical files already on the destination are not recopied from the source.
Disaster Recovery
Prepare for Disaster Recovery
After you have performed a backup of a computer, use this wizard to create a bootable CD or instructions to allow you to easily recover a non-bootable computer.

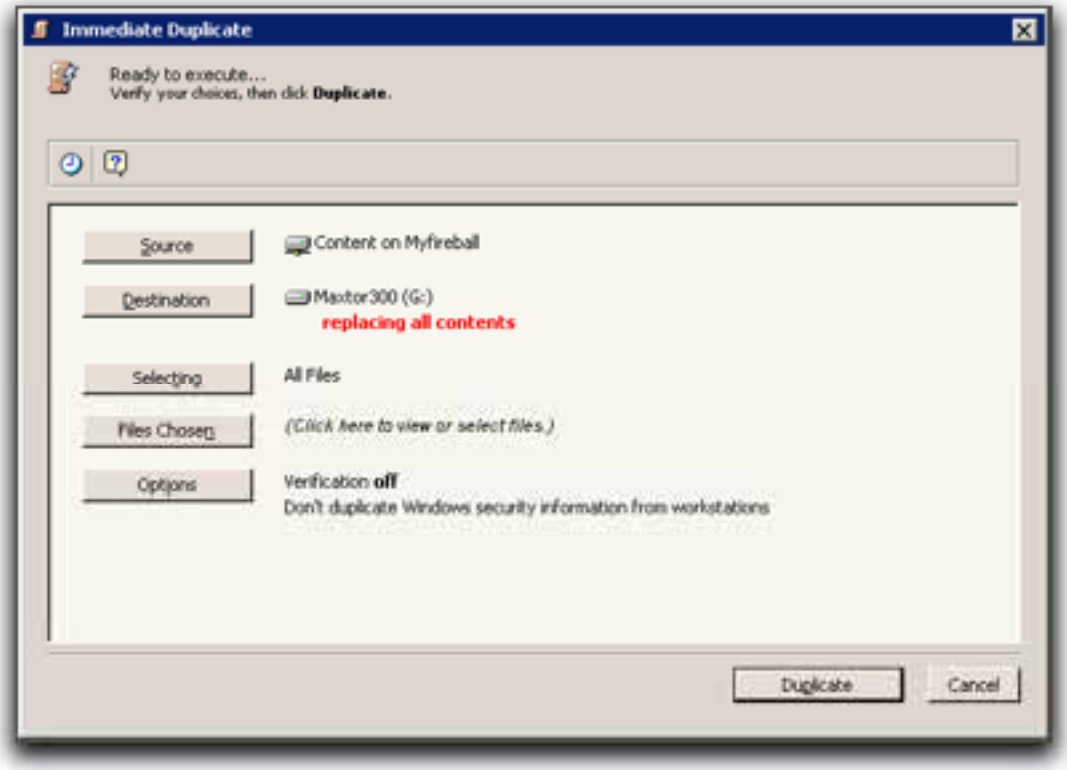
5. Select Source, then **CONTENT** as the Source volume, then the **OK** button



6. Select Destination, then select the **external Maxtor hard drive** as the Destination. Make sure that “Replace Entire Volume” is selected. Select the **OK** button

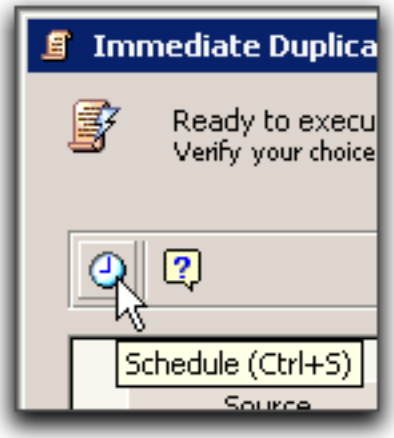


7. The following dialog is displayed.



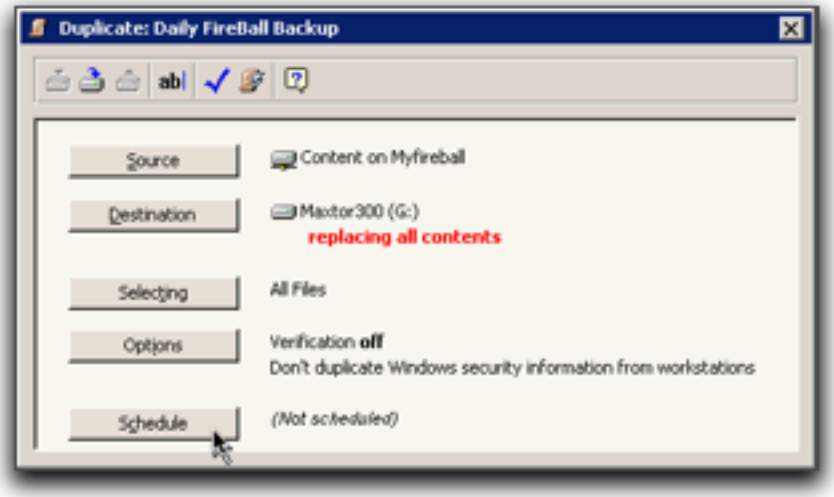
Note: If you want to turn off Verification, select Options and turn it off. Verification will verify that all files were backed up correctly, but will increase the overall backup time.

8. You can run the backup immediately by selecting the Duplicate button, or to schedule the backup to run every day, select the **Schedule** icon at the top of the toolbar (or just type Ctrl+S).

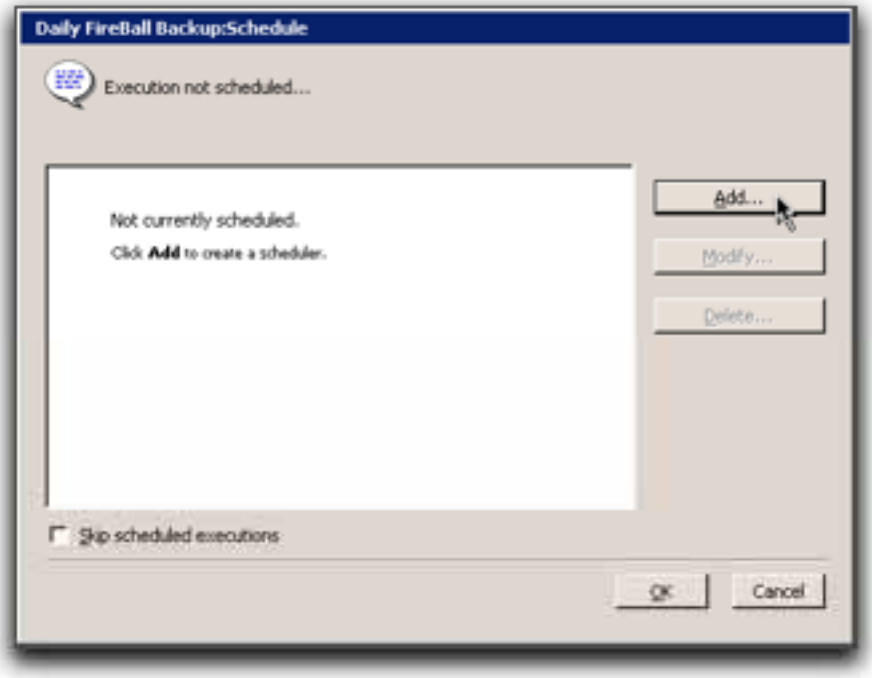


9. Name the new Schedule "**Daily FireBall Backup**" and select the New button.

10. When the following dialog is displayed, select the **Schedule** button.

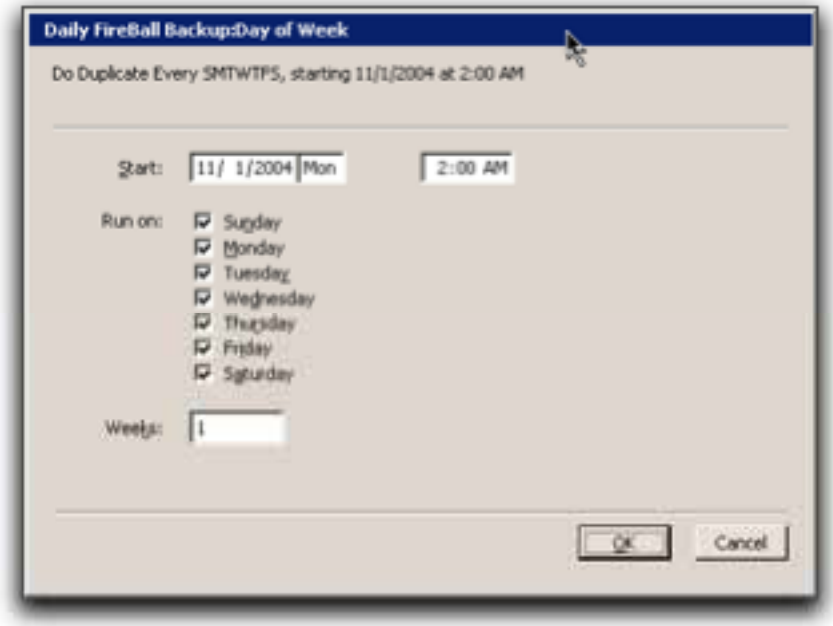


11. Select **Add** button to add a new schedule.

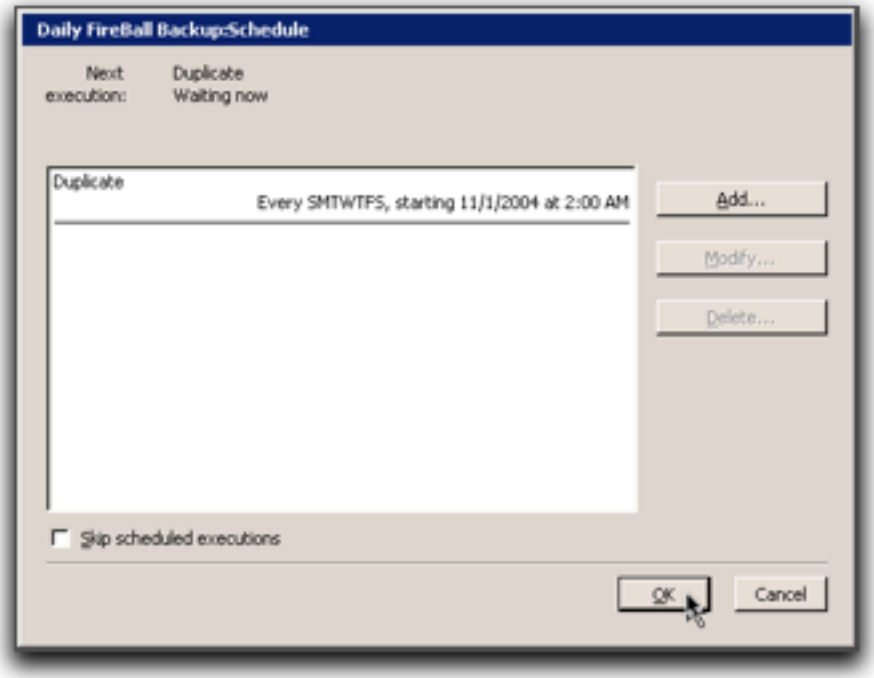


12. When the following dialog is displayed, select "**Day of the week**" then the **OK** button

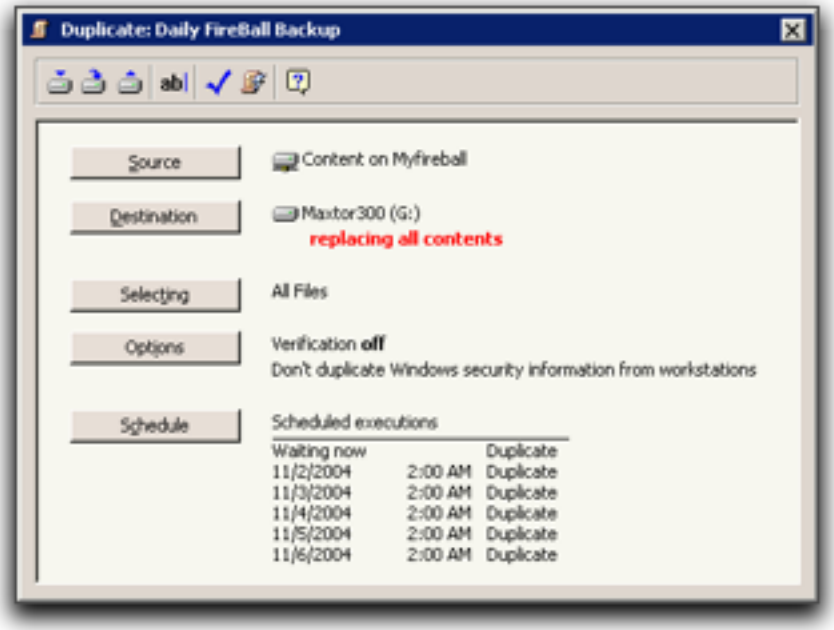
13. Select the start date (usually today), the start time (usually overnight when you are sleeping) and on which days to run the backup (usually every day). Select 1 week to have the schedule run every week. Select **OK** when you are done.



14. You should see the following dialog with your scheduled options. If this is correct, select the **OK** button.

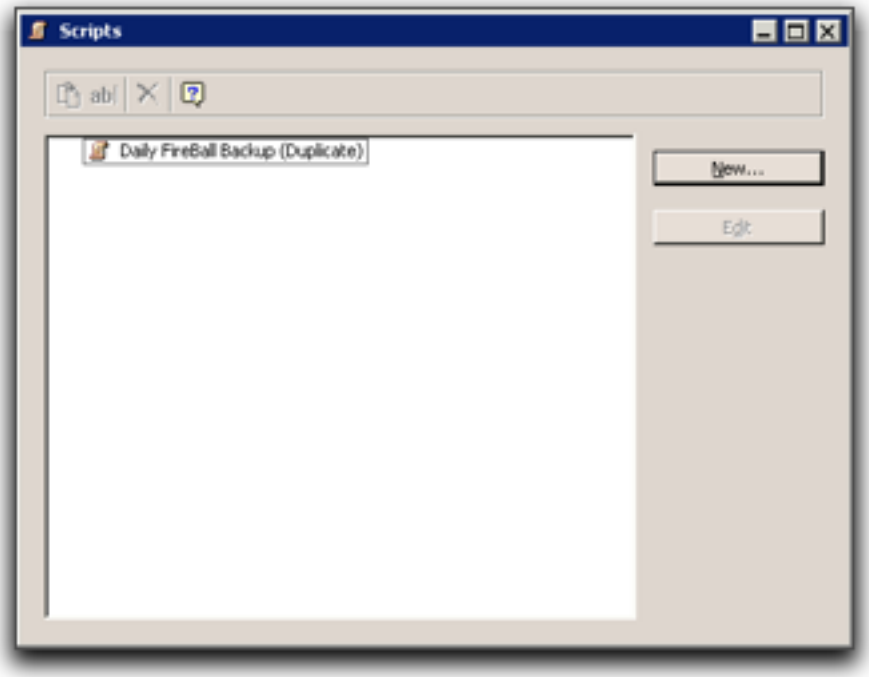


15. You should now have a Duplicate dialog screen that looks like this, with a series of scheduled execution dates listed next to “Schedule”.



16. Close all windows and Save if asked to do so. To verify that the Schedule is set, select Manage Scripts from the Retrospect sidebar.

You should see one script listed called “Daily FireBall Backup (Duplicate)”. You backup is now scheduled to run.



IMPORTANT!!!
Remember that your PC must be on and your CONTENT directory must be mapped on your PC in order for Retrospect to run automatically. Retrospect will launch automatically, you do not have to keep it running. For more detailed information on Retrospect, read the full documentation included on the Maxtor CD-Rom or visit the Retrospect web site at http://www.dantz.com.

Integrating with iTunes and iPod

FireBall supports iTunes and iPod integration through the FireBall Network File Sharing feature described above. Once your PC is connected to your FireBall over the network, you can access FireBall's music and use it from iTunes and sync it with your iPod.

Note: Other PC music player applications and portable MP3 players are also supported, however the following instructions are specific to Apple iTunes and the iPod. Please refer to the user's manual for your MP3 software for specific instructions about how to import and transfer MP3 files from a networked drive.

Please read the section ***Connecting to your FireBall*** before proceeding to make sure that you can mount FireBall's CONTENT volume on your PC Desktop.

What You Can Do

Once FireBall's is mounted on your PC Desktop, you can:

- Import FireBall MP3 music into iTunes
- Create iTunes Playlists
- Burn CDs using iTunes
- Sync Playlists and Music to your Apple iPod

What You Can't Do

Here are some things you **can't** do with iTunes:

- Copy Music from an iPod to FireBall
- Copy iTunes Playlists to your FireBall
- Import FLAC files

Note: WinAmp is the preferred PC Music Player for playing FLAC files stored on the FireBall music server. A FLAC plugin for WinAMP is required to play the FLAC files. Please refer to the http://flac.sourceforge.net/ web site for more information on the WinAmp FLAC plugin and other PC players that support FLAC playback.

Importing Music Into iTunes

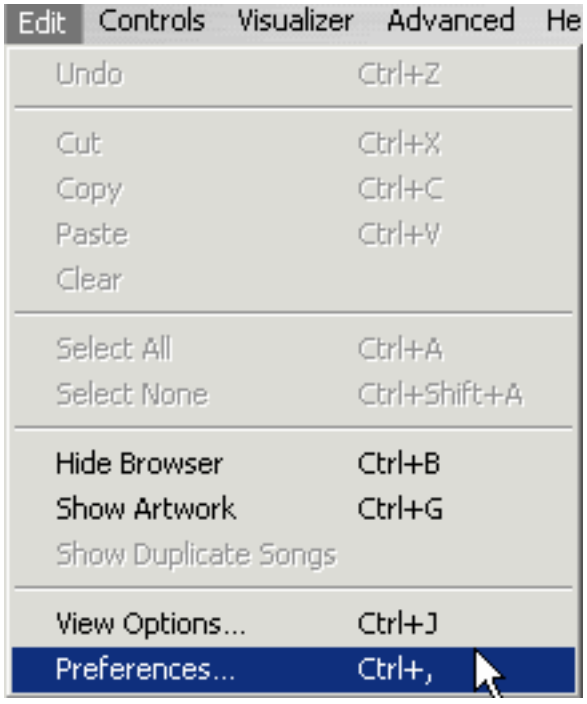
iTunes allows music files to reside on different volumes or hard drives, including network volumes. Since FireBall's CONTENT volume is really just another network volume to the PC OS, you can add your FireBall music to iTunes.

iTunes creates and maintains it's own Library index files which are separate from the actual music files that appear in it's browser window. This means that the ***iTunes Music Library*** file can remain on your hard drive (usually located in your Music folder) while the actual music files are located on some other volume, like the FireBall CONTENT volume.

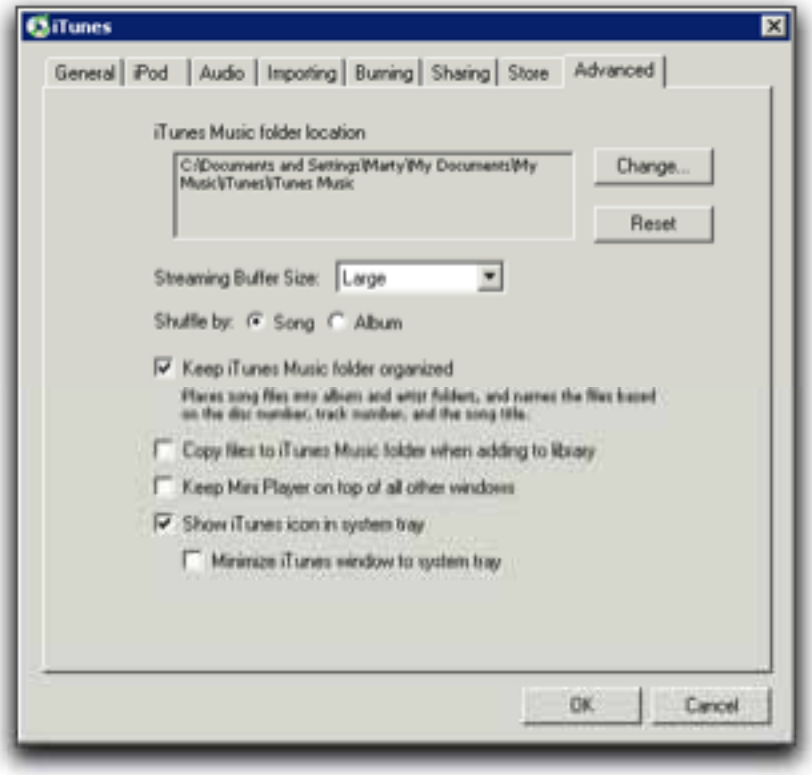
Note: Since iTunes does not currently support FLAC files, only MP3 files from FireBall can be used with iTunes.

Follow these steps to import your FireBall music content into iTunes:

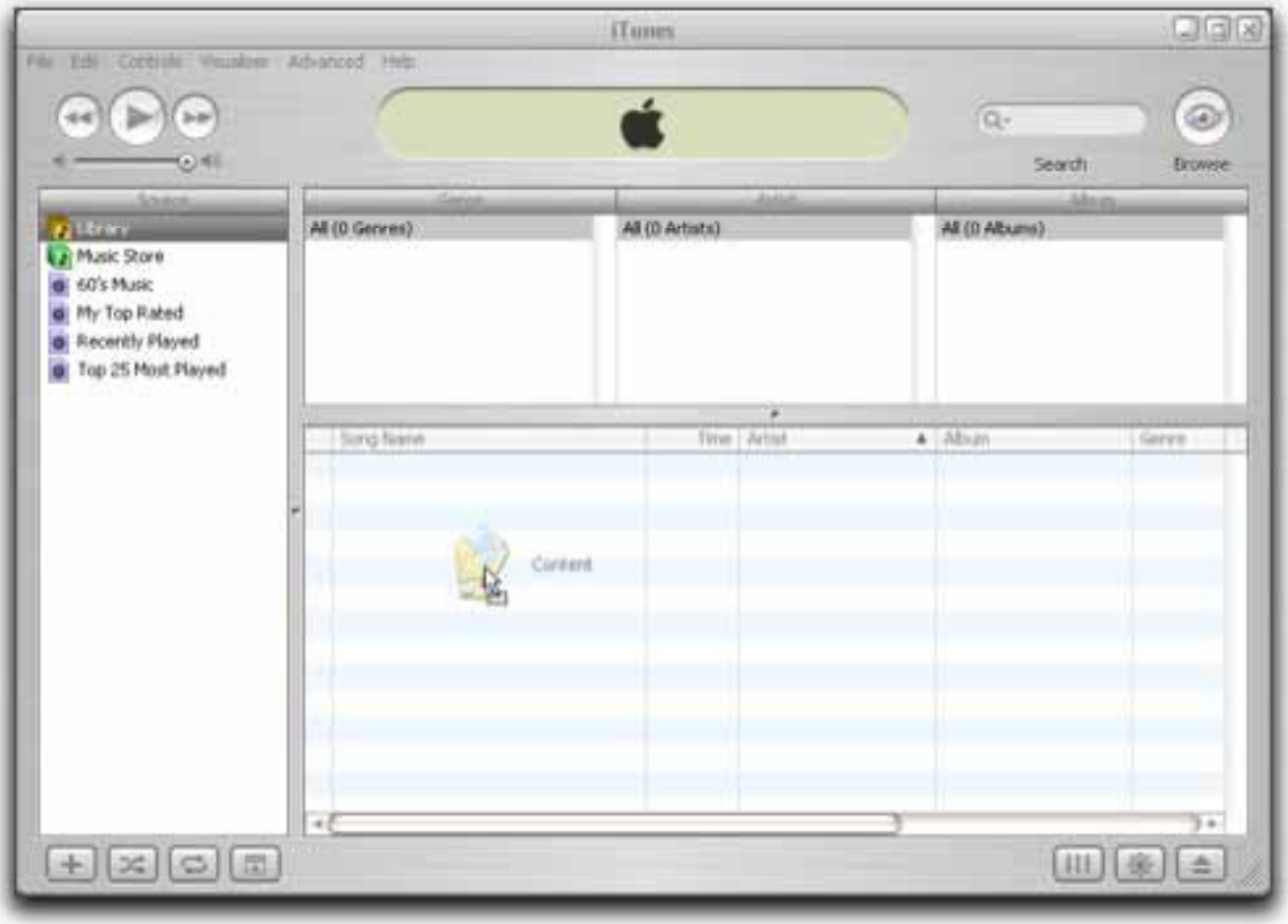
1. After mounting your FireBall's CONTENT volume (see above), open iTunes on your PC.
2. Select **Preferences…** from the iTunes menu



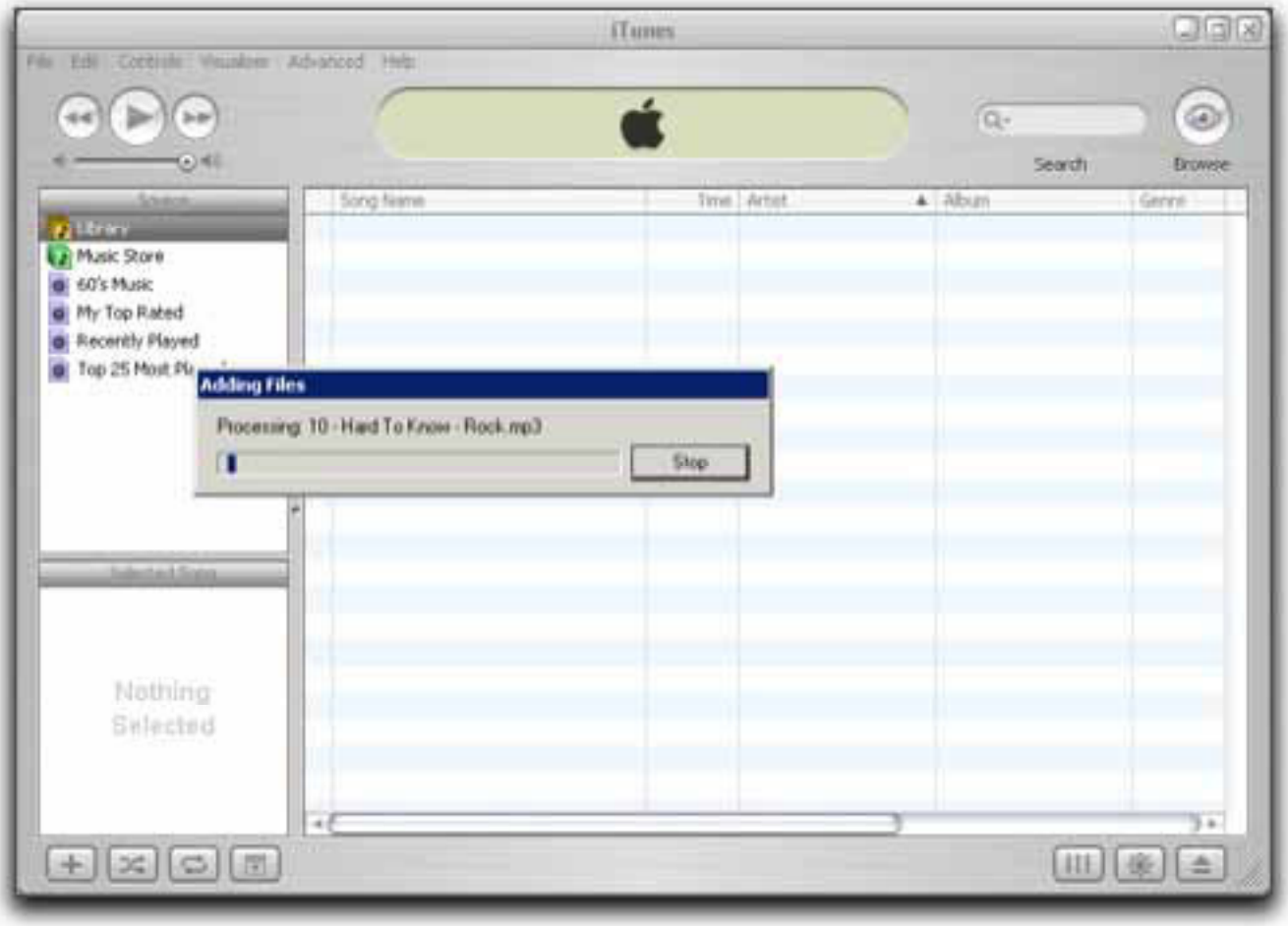
3. Click the Advanced icon in the toolbar to display the **Advanced** Preferences panel.
4. Make sure that **Copy files to iTunes Music folder when adding to library** is **NOT checked**. If it is checked, all music files imported into iTunes will be copied into your hard drive as they are imported. We don't want to do this, because we simply want to access the music from FireBall, not duplicate it on the PC.



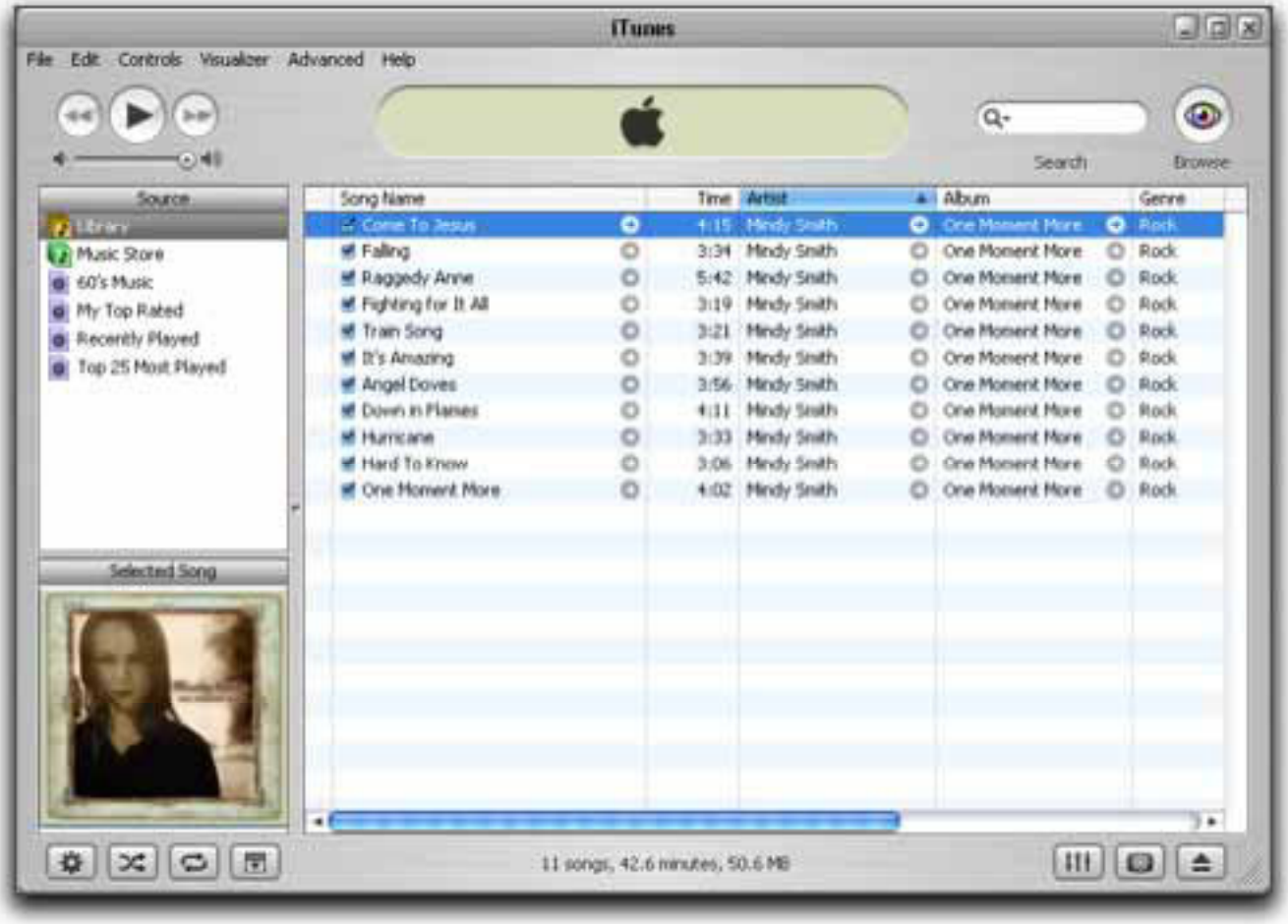
5. Drag and drop the CONTENT volume from your PC Desktop to the iTunes browser window.


iTunes
File Edit Controls Visualizer Advanced Help
Search
Browse
Source
Library
Music Store
60's Music
My Top Rated
Recently Played
Top 25 Most Played
Genre
Artist
Album
All (0 Genres)
All (0 Artists)
All (0 Albums)
Song Name
Time
Artist
Album
Genre
Content

6. Wait while iTunes scans the CONTENT volume for valid MP3 files and adds them to the iTunes Library.



7. When all your MP3 files have been imported, the iTunes browser window will display the music content from your FireBall, including cover art!


iTunes
File Edit Controls Visualizer Advanced Help
Search
Browse
Source
Library
Music Store
60's Music
My Top Rated
Recently Played
Top 25 Most Played
Selected Song
Song Name Time Artist Album Genre
Come To Jesus 4:15 Mindy Smith One Moment More Rock
Falling 3:34 Mindy Smith One Moment More Rock
Raggedy Anne 5:42 Mindy Smith One Moment More Rock
Fighting for It All 3:19 Mindy Smith One Moment More Rock
Train Song 3:21 Mindy Smith One Moment More Rock
It's Amazing 3:39 Mindy Smith One Moment More Rock
Angel Doves 3:56 Mindy Smith One Moment More Rock
Down in Flames 4:11 Mindy Smith One Moment More Rock
Hurricane 3:33 Mindy Smith One Moment More Rock
Hard To Know 3:06 Mindy Smith One Moment More Rock
One Moment More 4:02 Mindy Smith One Moment More Rock
11 songs, 42.6 minutes, 50.6 MB

You can now access your FireBall music from iTunes just as if it were located on your PC.

Creating iTunes Playlists

Now that your FireBall music has been added to the iTunes Library, you can create iTunes Playlists. Playlists can contain any combination of music available in the iTunes browser, no matter where it actually resides. The only thing to remember is that FireBall's CONTENT directory must be mounted on your PC in order for iTunes to locate and play FireBall music.

Please refer to the iTunes Help screens for more detailed information about creating Playlists within iTunes.

Note: iTunes actually streams each MP3 from FireBall in real-time over your network. This may limit the number of simultaneous client streams that your FireBall server can play at once.

Burn CDs from iTunes

Again, since your FireBall music has been added to the iTunes Library, you can burn CDs directly from iTunes Playlists on your PC. Playlists can contain any combination of music available in the iTunes browser, no matter where it actually resides. The only thing to remember is that FireBall's CONTENT directory must be mounted on your PC in order for iTunes to locate and burn CDs that contain music which is physically located on your FireBall music server.

In iTunes, you burn a CD from a Playlist. Create a Playlist in iTunes with the songs you want on your CD, then click the Burn icon in the upper right corner of the screen. Please refer to the iTunes Help screens for more detailed information about creating Playlists within iTunes.

Sync Playlists and Music to your iPod

Once again, since your FireBall music has been added to the iTunes Library, you can also sync iTunes Playlists to your iPod. Your iPod can contain any combination of music available in the iTunes browser, no matter where it actually resides. The only thing to remember is that FireBall's CONTENT directory must be mounted on your PC in order for iTunes to locate and sync MP3 music which is physically located on your FireBall music server.

Please refer to the iTunes Help screens for more detailed information about syncing music to an iPod using iTunes.

Note: Remember that iTunes does not support FLAC files, so only FireBall MP3 files can be synced to an iPod.

ID3 Tags and the PC

What is an ID3 Tag?

When MP3s became popular in late 1996, people started wondering if there would be a solution for the lack of information in audio tracks stored in MP3 format. Basically the problem was that even most advanced rippers who distributed audio tracks in MP3 format, included the information about album, track name, etc inside the filename. Since some people then renamed the files as something else that didn't provide the same quality of information anymore, ID3 was born.

An ID3 tag is a small piece of information stored physically inside the MP3 file (in the beginning or in the end of the file, depends on ID3's version). ID3 tags (as the pieces of information that ID3s contain are called) can contain various information about the MP3, like album name, song name, artist, original artist, genre, composer, releasing year, additional comment fields, cover art etc.. Nowadays ID3s are de facto in audio world and they can be added to most of the audio formats and even to certain video formats in order to provide additional information of the file. FireBall uses ID3 tags to store information about MP3 and FLAC files which are recorded or ripped into FireBall.

FireBall's ID3 tag Requirements

FireBall supports version1.0, 1.1, 2.2, and 2.3 ID3 tags. Before you can properly import music files into FireBall, you should first convert all of your MP3 and FLAC files to use ID3 version 2.2 or 2.3 tags. There are several programs available to do this including iTunes, however since iTunes does not support FLAC files you cannot use it for editing ID3 tags embedded into FLAC files.

Apple iTunes is a PC program that can edit ID3 tags embedded into MP3 files. Follow these steps to convert your MP3 files to use ID3v2.3 tags BEFORE importing them to your FireBall.

1. Select the **Library** in the iTunes Source list.
2. Type **Ctrl+A** to select all of the Songs in your Library.

3. Select **Convert ID3 Tags…** from the Advanced menu.

4. When the **Convert ID3 Tags** dialog is displayed, select **v2.3** from the drop down menu, then select OK.

5. The ID3 tags within all of the selected songs will be converted to v2.3 and thus compatible with the FireBall.

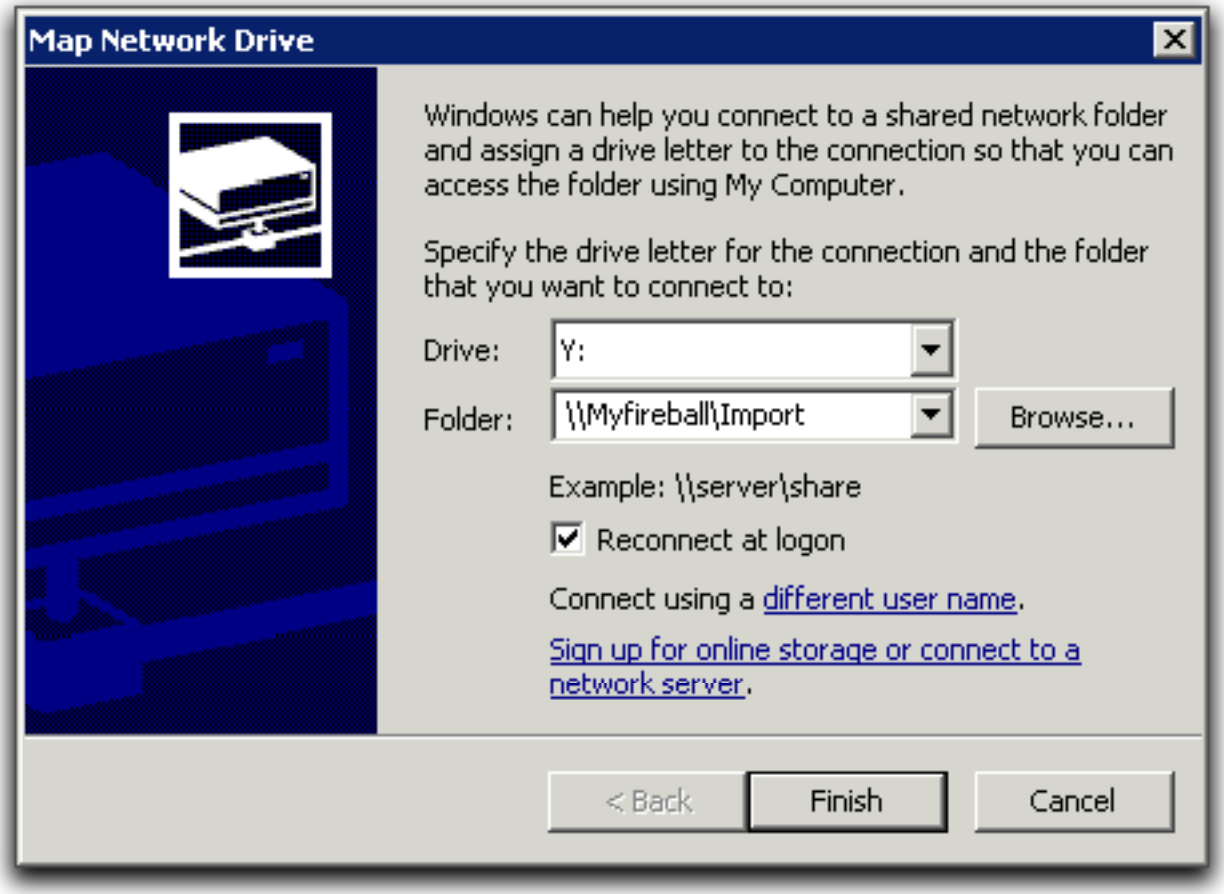
Note: Because the CONTENT volume is a read-only volume, you cannot edit anything. You must first copy any files you want to edit onto your PC and then import them back into your FireBall, replacing the originals. Please see the section ***Importing Music Into FireBall*** for instructions on how to get your music files into your FireBall using the IMPORT volume.

Importing Music Into FireBall

FireBall's **CONTENT** volume is read-only, which means you can't write to it or use it for importing music files from your PC to your FireBall. There is a way! FireBall actually provides two server volumes, one for reading your music collection and one for importing your music collection. The difference is that the **IMPORT** volume is a writeable volume while the CONTENT volume is read only.

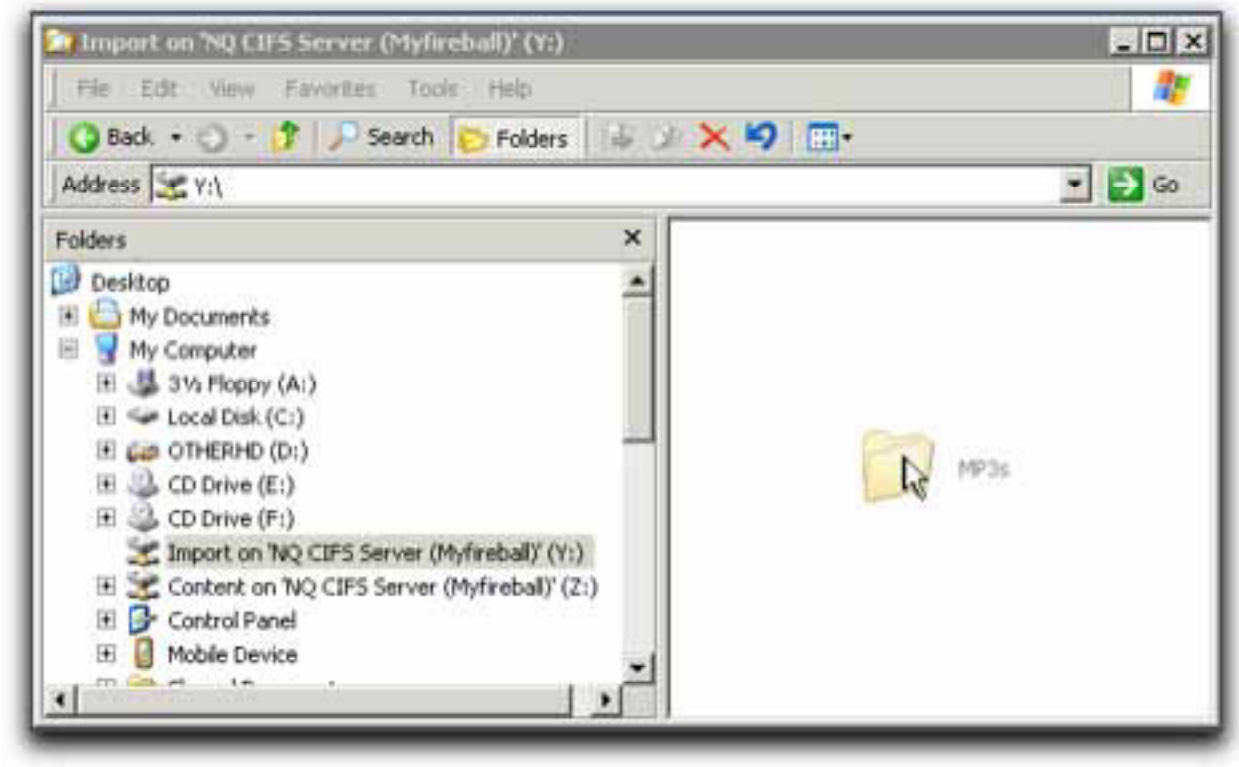
Mounting the IMPORT Volume

Mount your FireBall's **IMPORT** volume by right clicking on "My Computer" and selecting "Map Network Drive". Choose an available drive letter, then type in the name of your FireBall. Example: suppose you named your FireBall "MyFireBall" in the Server Settings screen, you would then enter **\\MyFireBall\Import** in the Folder name, and click Finish.

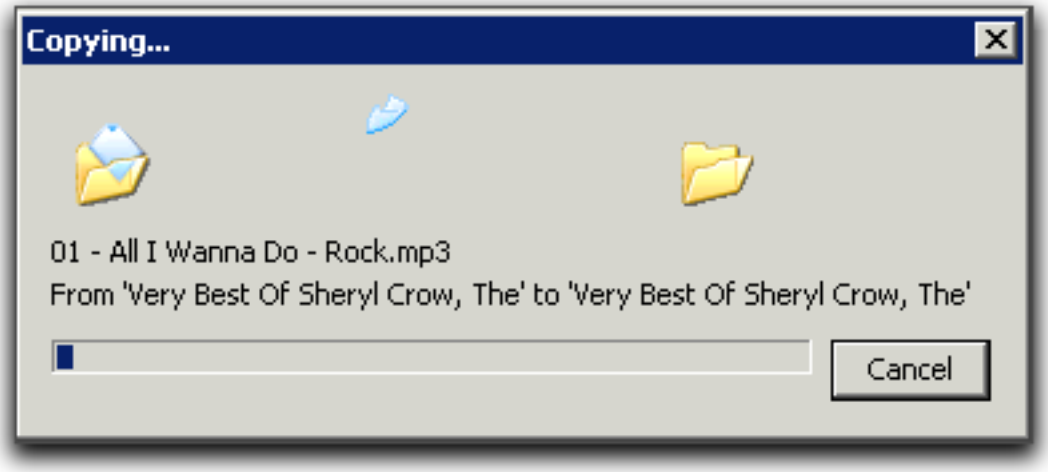

Map Network Drive
Windows can help you connect to a shared network folder and assign a drive letter to the connection so that you can access the folder using My Computer.
Specify the drive letter for the connection and the folder that you want to connect to:
Drive:
Y:
Folder:
\\Myfireball\Import
Browse...
Example: \\server\share
Reconnect at logon
Connect using a different user name.
Sign up for online storage or connect to a network server.
< Back
Finish
Cancel

Importing your Music Files

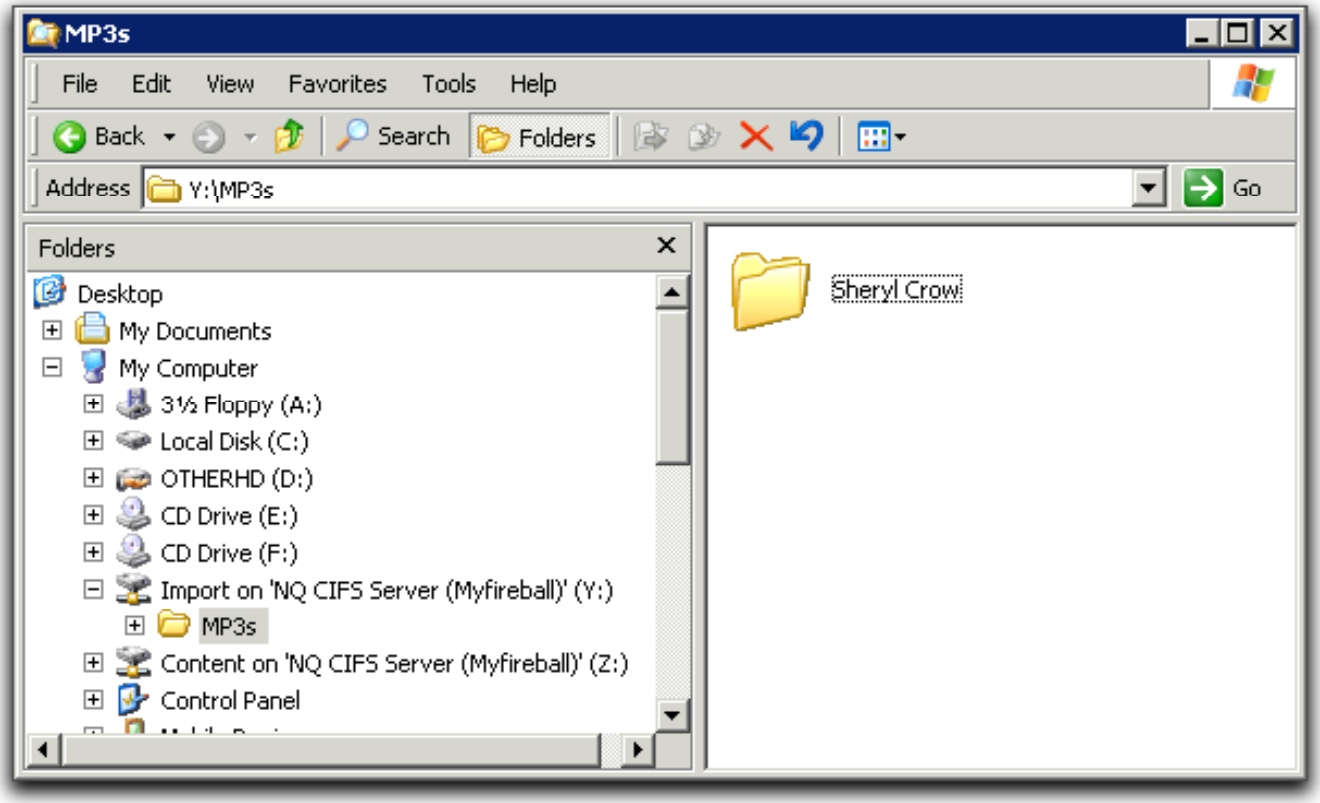
Once the IMPORT volume is mapped as a new drive, simply drag and drop any MP3 or FLAC audio file into the IMPORT volume and the files will be copied to FireBall and added to the FireBall Music Library. You can drag and drop whole collections, a folder of songs, or just a single song.



When the music files are copied to the FireBall, you will see the new songs appear on your FireBall's Music Guide, under the" artist – album name" as defined in the file's ID3 tag.



Note: The IMPORT directory may contain special “cache files” in it if you have previously imported music into your FireBall. These files are just temporary cache files that appear to be the original music files, however they are not. They are just temporary “stub” files that indicate what you previously imported into your FireBall. You can delete these files without actually deleting the originals which physically reside on the CONTENT volume.



The IMPORT volume displaying the temporary cache files for an imported artist folder

Controlling FireBall from Internet Explorer

The FireBall contains a built-in web server capable of serving web pages specifically designed to control almost every aspect of the FireBall from a standard web browser such as Microsoft's Internet Explorer.

Requirements

In order to control your FireBall from Internet Explorer, you will need to meet the following requirements:

- Your PC and FireBall must be on the same Ethernet network
- Windows XP Home or Pro Edition OS installed on your PC
- Internet Explorer (included with XP)

Connecting to Your FireBall

Before you can connect to your FireBall from Internet Explorer, you must obtain the "IP Address" of your FireBall. Follow these steps to determine the IP Address:

1. Press the SETUP key on the remote to display the Setup menu.
2. Select the Utilities menu item.
3. Select the System Information menu item.
4. Write down the IP Address of your FireBall's Ethernet connection. This number is located in the bottom right of the System Information screen and consists of four numbers separated by periods. Example: 192.168.1.1
5. Press the SETUP key again to exit Setup

On your PC, open Internet Explorer and enter the IP address of your FireBall into the Address Bar and press the Return key on your keyboard. You should now see the familiar FireBall user interface on your PC.

Controlling Your FireBall

The FireBall Web Client Interface is the graphics and control system web pages that appear in your Internet Explorer browser. From this web page, you can control almost every aspect of your FireBall, just as you would from the original IR remote and TV.

You will notice that unlike the TV user interface, there are buttons along the left and right edges of the web browser. These buttons duplicate the features found on your remote control.

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PRODUCTS FOR THE HUMAN INTERFACE.

Mac OS X Integration

A Guide to Using FireBall with Mac OS X Panther

6325 Digital Way Indianapolis, IN 46278 317.616.6789 phone 317.616.6790 fax www.escient.com

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FireBall to Mac Networking Basics

Overview

With the new Network File Sharing feature built into FireBall, you can now access your FireBall from your Mac using your home network. Having access to your FireBall allows you to do things like backup your music files, import music files from your Mac to your FireBall, remotely control your FireBall from your Mac, and share your FireBall based music with iTunes and the Apple iPod. This document will explain how to do all of these things using your Mac and your FireBall over your home network.

Requirements

In order to connect to your FireBall, you will need to have your FireBall and Mac on the same network. This document assumes that you already have a home network correctly setup and configured. If you need help setting up your network, please review the “Home Network Primer” available on the Escient web site, or contact your Escient dealer.

The following items are required for connecting your Mac to your FireBall:

- Properly configured Ethernet home network
- Fireball E2 Music Manager or DVDM Media Manager with and internal hard drive and File Sharing Support
- Mac OS X computer with 64MB of ram and Mac OS X 10.3.5 or later (Panther)
- iTunes 4.5 or later

Connecting to Your FireBall

FireBall uses a type of file server commonly called “Windows Networking” or “CIFS/SMB”. CIFS/SMB networking is found in most Microsoft operating systems and allows PCs to connect and then share files over a network. Mac OS X has a built-in Windows Networking client for CIFS/SMB and thus allows the Mac to connect to any CIFS/SMB server on the local network.

Setting up the FireBall Server

Before you can connect to your FireBall you must configure FireBall’s server settings. Follow these steps to configure your FireBall server:

1. Using your FireBall remote, press **SETUP** to display the Setup Menu.
2. Select the **NETWORK** menu item.
3. Select the **SERVER SETTINGS** menu item to display the Server Settings screen.
4. Enter a name for your FireBall using the remote or keyboard. Do not use spaces in the name.
5. Select the **SAVE** button to save your settings.
6. Press **SETUP** again to exit the Setup menus.

SERVER SETTINGS
Enter a name for your FireBall server. This is the name you will see when seleting a server from FireBall-MP players, wireless web pads and web browsers.
FireBall name:
MyFireBall
Enter a password to limit access to FireBall's built-in web server or leave it blank if you do not want to use a password. There is no 'user name' when connecting to a FireBall server using a web browser.
Web Password:
help
cancel
save

Server Settings screen

Connecting to the FireBall Server

Once you have setup the FireBall server, you can now connect to it from your Mac. Follow these steps to connect to your FireBall from your Mac OS X computer:

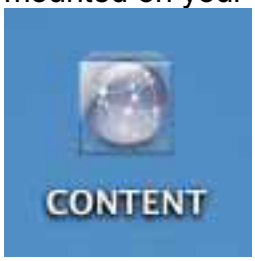
1. Go to the Finder and select **Connect to Server…** from the Go Menu.

2. Enter “smb://” (without the quotes) and the name of your FireBall server into the Server Address field in the Connect to Server dialog. Example: smb://MyFireBall

3. Select the **Connect** button and wait for the Mac to locate your FireBall on the Network. When your FireBall is located, the SMB Mount dialog will appear.

4. Select **OK** to select the default volume called “Content”.
5. Depending on your network configuration, the SMB/CIFS Filesystem Authentication dialog might be displayed. If it is, just click the **OK** button. There are no usernames or passwords to enter for connecting to your FireBall server.

6. The Content volume, which contains all of your FireBall's music content, will be mounted on your Mac's Desktop.



The Content volume is mounted as a Read-Only volume in order to minimize the chances of accidentally deleting music from your FireBall.

Backing Up Your FireBall

Once you have successfully mounted your FireBall's Content volume on your Mac, you now have access to the music content contain on the FireBall's internal hard drive. Having this access affords you the opportunity to backup your FireBall's music collection. There are many ways to backup the music files including copying files to another drive mounted on your Mac or using third party backup software to perform automated backups each night.

Note: Playlists, Internet Radio Stations, and System Settings are not backed up. Only the actual music files are available for backup within the Content volume mounted on your Mac Desktop.

One Time Backup

If you are only going to make a one time backup of the FireBall for safe keeping, it is recommended to do a simple drag and drop of the Content volume to another volume mounted on your Mac. This one time backup method is useful if your FireBall music collection is not going to change much from day to day and you simply want to preserve a copy as a failsafe to some catastrophic event such as theft, loss by fire, or hard drive crash. This is typically done by an installer or dealer who wants to keep an offsite copy of the installed FireBall for safety reasons.

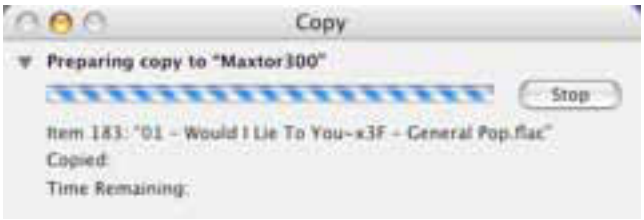
Escient recommends that a 300 GB external FireWire drive be used for each full FireBall backup and stored in a different physical location from the FireBall to reduce the possibility of loosing both the FireBall and the Backup Drive in a single catastrophic event. FireWire hard drives from Maxtor and LaCie are readily available in 300GB sizes.

Follow these steps to backup all music files from your FireBall to an external hard drive connected to your Mac.

1. **Connect an external hard drive** which is equal or greater 300 GB to your Mac.
2. From the Finder, **double-click the CONTENT volume** to display it's contents.
3. Choose **Select All** from the edit menu to select all of the files and folders in the CONTENT volume.

4. While all the items on the Content volume are highlighted**,** click and **drag from the CONTENT volume to the Backup drive**.

5. All of the items in the current selection will now be copied to the backup drive. Depending on the size of your music collection, this may take a while to complete. It will take approximately 3 days to backup an entire 300 GB drive over an Ethernet connection.



Automated Backups

If you are going to add new music or edit the contents of your FireBall frequently, it is recommended to setup an automated backup system. This type of backup requires the use of a third party backup software application and a computer that can access your FireBall over the network. Each night the contents of your FireBall which have been added, deleted, or edited will be copied to the backup folder on your computer. The backup software manages which files have changed compared to what is in the backup folder and copies only those files which have changed, keeping the FireBall's CONTENT volume in sync with a duplicate volume.

Escient offers the "**FireBall Backup Kit**" (FBK-1) to help make FireBall backup easy. The kit is comprised of an external hard drive that connects to your Mac (or PC along with Retrospect backup software. The FBK-1 is available from your Escient dealer.

Using the FireBall Backup Kit to Backup your FireBall Every Night

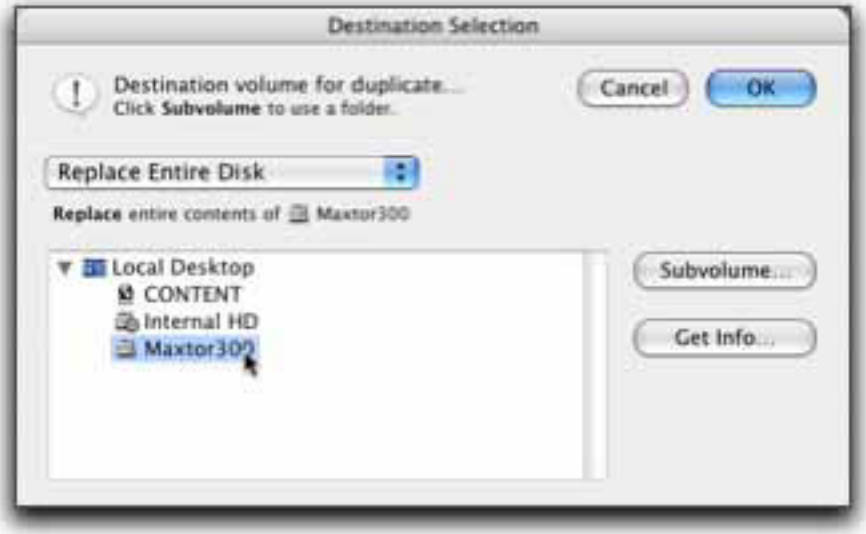
1. **Install** the **Retrospect Express** backup software from the CD-Rom disc included with the 300 GB Maxtor FireWire drive.
2. **Connect** the Maxtor **drive** to your Mac using the included FireWire cable. The Maxtor drive should appear on your Mac desktop.
3. **Mount** your FireBall's **CONTENT** volume (see above for instructions)
4. Launch Retrospect Express

5. Select **Immediate** at the top of the Retrospect window.
6. Select the **Duplicate** button.

Retrospect Express Directory
Immediate
Automate
Tools
Configure
Back up, restore, or duplicate files now
Backup
Back up files, folders, or volumes to a backup set of media
Restore
Restore a backup set's files, folders, or volumes to a disk or folder
Duplicate
Copy one folder or volume to another
Archive
Move files to a backup set, deleting the originals

7. Select **CONTENT** as the Source volume, then the **OK** button

8. Select the **external Maxtor FireWire hard drive** as the Destination and make sure that "Replace Entire Disk" is selected. Select the **OK** button



9. The following dialog is displayed.

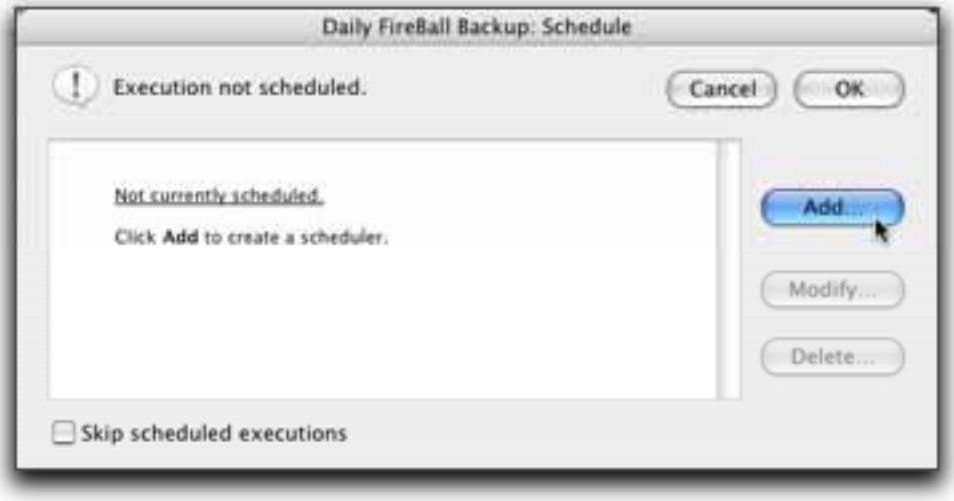
Note: If you want to turn off Verification, select Options and turn it off. Verification will verify that all files were backed up correctly, but will increase the overall backup time.

10. You can run the backup immediately by selecting the Duplicate button, or to schedule the backup to run every day, select **Schedule** from the Script menu.

11. Name the new Schedule "**Daily FireBall Backup**" and select the New button.

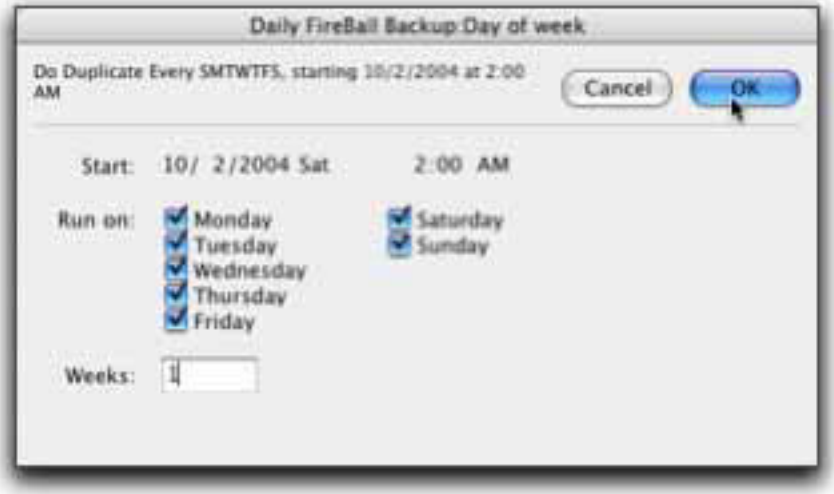
12. When the following dialog is displayed, select the **Schedule** button.

13. Select **Add** button to add a new schedule.

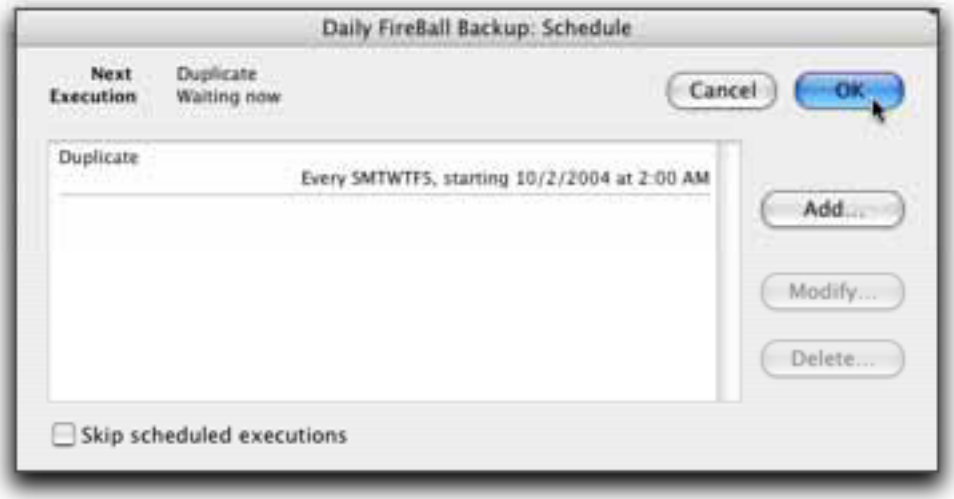


14. When the following dialog is displayed, select "**Day of the week**" then the **OK** button

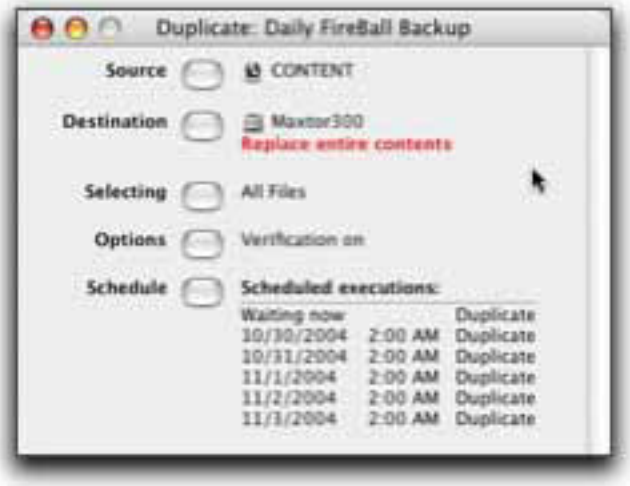
15. Select the start date (usually today), the start time (usually overnight when you are sleeping) and on which days to run the backup (usually every day). Select 1 week to have the schedule run every week. Select **OK** when you are done.



16. You should see the following dialog with your scheduled options. If this is correct, select the **OK** button.



17. You should now have a Duplicate dialog screen that looks like this, with a series of scheduled execution dates listed next to “Schedule”.



18. Close all windows and Save if asked to do so. To verify that the Schedule is set, select Automate and Scripts from the Main Retrospect Express screen.

You should see one script listed called “Daily FireBall Backup (Duplicate)”. You backup is now scheduled to run.

IMPORTANT!!!
Remember that your Mac must be on and your CONTENT directory must be mounted on your Mac Desktop in order for Retrospect to run automatically. Retrospect will launch automatically, you do not have to keep it running. For more detailed information on Retrospect Express, read the full documentation included on the Maxtor CD-Rom or visit the Retrospect web site at http://www.dantz.com.

Integrating with iTunes and iPod

FireBall supports iTunes and iPod integration through the FireBall Network File Sharing feature described above. Once your Mac is connected to your FireBall over the network, you can access FireBall's music and use it from iTunes and sync it with your iPod.

Please read the section ***Connecting to your FireBall*** before proceeding to make sure that you can mount FireBall's CONTENT volume on your Mac Desktop.

What You Can Do

Once FireBall's is mounted on your Mac Desktop, you can:

- Import FireBall MP3 music into iTunes
- Create iTunes Playlists
- Burn CDs using iTunes
- Sync Playlists and Music to your Apple iPod

What You Can't Do

Here are some things you **can't** do with iTunes:

- Copy Music from an iPod to FireBall
- Copy iTunes Playlists to your FireBall
- Import FLAC files

Importing Music Into iTunes

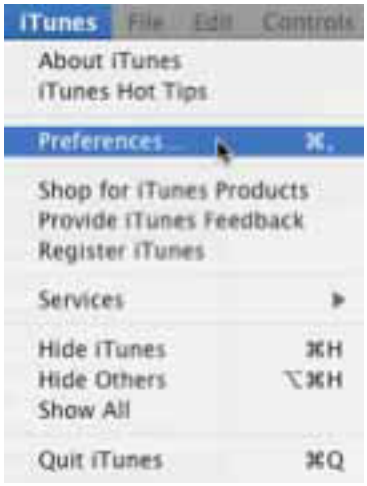
iTunes allows music files to reside on different volumes or hard drives, including network volumes. Since FireBall's CONTENT volume is really just another network volume to the Mac OS, you can add your FireBall music to iTunes.

iTunes creates and maintains it's own Library index files which are separate from the actual music files that appear in it's browser window. This means that the ***iTunes Music Library*** file can remain on your hard drive (usually located in your Music folder) while the actual music files are located on some other volume, like the FireBall CONTENT volume.

Note: Since iTunes does not currently support FLAC files, only MP3 files from FireBall can be used with iTunes.

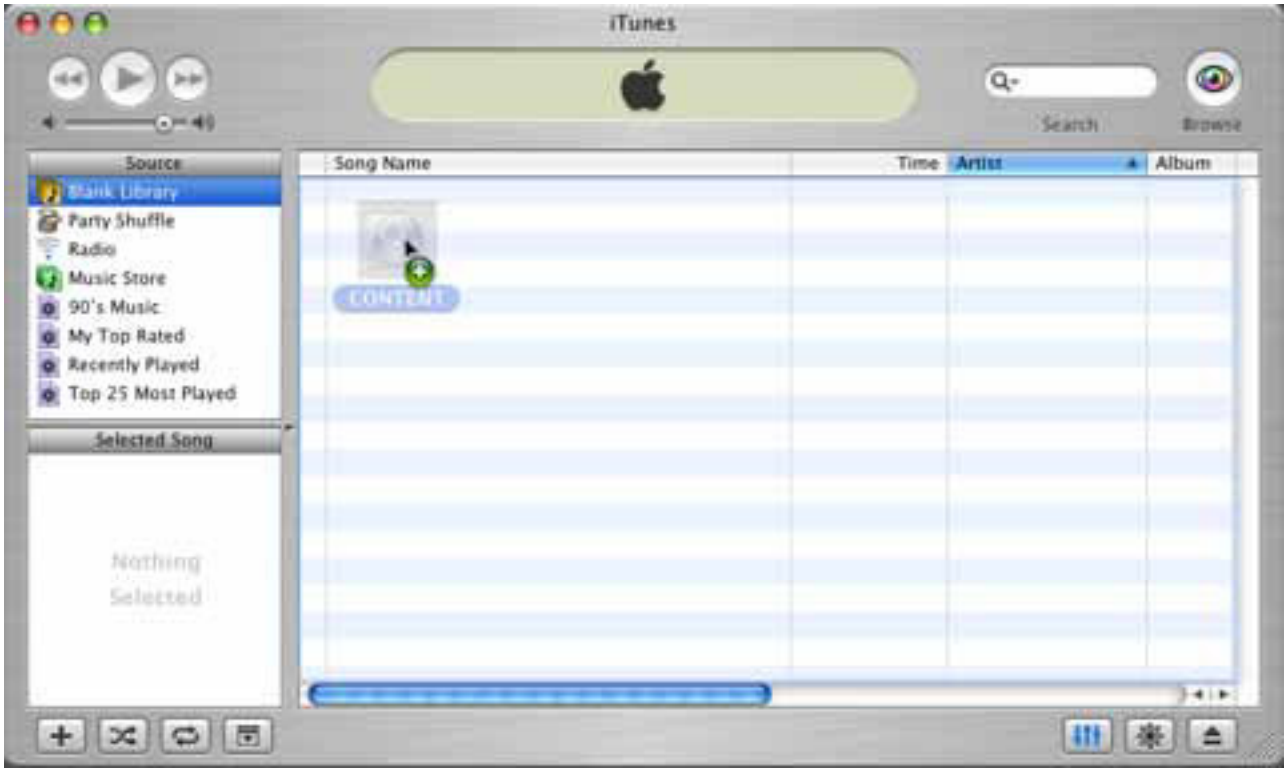
Follow these steps to import your FireBall music content into iTunes:

1. After mounting your FireBall's CONTENT volume (see above), open iTunes on your Mac.
2. Select **Preferences…** from the iTunes menu



3. Click the Advanced icon in the toolbar to display the **Advanced** Preferences panel.
4. Make sure that **Copy files to iTunes Music folder when adding to library** is **NOT checked**. If it is checked, all music files imported into iTunes will be copied into your hard drive as they are imported. We don't want to do this, because we simply want to access the music from FireBall, not duplicate it on the Mac.

5. Drag and drop the CONTENT volume from your Mac Desktop to the iTunes browser window.



6. Wait while iTunes scans the CONTENT volume for valid MP3 files and adds them to the iTunes Library.

7. When all your MP3 files have been imported, the iTunes browser window will display the music content from your FireBall, including cover art!

iTunes
Search
Browse
Source
Blank Library
Party Shuffle
Radio
Music Store
90's Music
My Top Rated
Recently Played
Top 25 Most Played
Selected Song
Song Name
Time
Artist
Album
I Need To Be In Love 3:50 Carpenters, The Love Son
So This is Christmas 3:35 John Lennon The John
Come To Jesus 4:15 Mindy Smith One Mom
Falling 3:14 Mindy Smith One Mom
Raggedy Anne 5:42 Mindy Smith One Mom
Fighting for It All 3:19 Mindy Smith One Mom
Train Song 3:21 Mindy Smith One Mom
It's Amazing 3:39 Mindy Smith One Mom
Angel Doves 3:56 Mindy Smith One Mom
Down in Flames 4:11 Mindy Smith One Mom
Hurricane 3:33 Mindy Smith One Mom
Hard To Know 3:06 Mindy Smith One Mom
One Moment More 4:02 Mindy Smith One Mom
All I Wanna Do 4:33 Sheryl Crow Very Best
Soak Up The Sun 4:52 Sheryl Crow Very Best
My Favorite Mistake 4:06 Sheryl Crow Very Best
First Cut Is The Deepest 3:47 Sheryl Crow Very Best
Everyday Is A Winding Road 4:17 Sheryl Crow Very Best
42 songs, 3.4 hours, 236.9 MB

You can now access your FireBall music from iTunes just as if it were located on your Mac.

Creating iTunes Playlists

Now that your FireBall music has been added to the iTunes Library, you can create iTunes Playlists. Playlists can contain any combination of music available in the iTunes browser, no matter where it actually resides. The only thing to remember is that FireBall's CONTENT directory must be mounted on your Mac in order for iTunes to locate and play FireBall music.

Please refer to the iTunes Help screens for more detailed information about creating Playlists within iTunes.

Note: iTunes actually streams each MP3 from FireBall in real-time over your network. This may limit the number of simultaneous client streams that your FireBall server can play at once.

Burn CDs from iTunes

Again, since your FireBall music has been added to the iTunes Library, you can burn CDs directly from iTunes Playlists on your Mac. Playlists can contain any combination of music available in the iTunes browser, no matter where it actually resides. The only thing to

remember is that FireBall's CONTENT directory must be mounted on your Mac in order for iTunes to locate and burn CDs that contain music which is physically located on your FireBall music server.

In iTunes, you burn a CD from a Playlist. Create a Playlist in iTunes with the songs you want on your CD, then click the Burn icon in the upper right corner of the screen. Please refer to the iTunes Help screens for more detailed information about creating Playlists within iTunes.

Sync Playlists and Music to your iPod

Once again, since your FireBall music has been added to the iTunes Library, you can also sync iTunes Playlists to your iPod. Your iPod can contain any combination of music available in the iTunes browser, no matter where it actually resides. The only thing to remember is that FireBall's CONTENT directory must be mounted on your Mac in order for iTunes to locate and sync MP3 music which is physically located on your FireBall music server.

Please refer to the iTunes Help screens for more detailed information about syncing music to an iPod using iTunes.

Note: Remember that iTunes does not support FLAC files, so only FireBall MP3 files can be synced to an iPod.

ID3 Tags and the Mac

What is an ID3 Tag?

When MP3s became popular in late 1996, people started wondering if there would be a solution for the lack of information in audio tracks stored in MP3 format. Basically the problem was that even most advanced rippers who distributed audio tracks in MP3 format, included the information about album, track name, etc inside the filename. Since some people then renamed the files as something else that didn't provide the same quality of information anymore, ID3 was born.

An ID3 tag is a small piece of information stored physically inside the MP3 file (in the beginning or in the end of the file, depends on ID3's version). ID3 tags (as the pieces of information that ID3s contain are called) can contain various information about the MP3, like album name, song name, artist, original artist, genre, composer, releasing year, additional comment fields, cover art etc.. Nowadays ID3s are de facto in audio world and they can be added to most of the audio formats and even to certain video formats in order to provide additional information of the file. FireBall uses ID3 tags to store information about MP3 and FLAC files which are recorded or ripped into FireBall.

FireBall's ID3 tag Requirements

FireBall supports version1.0, 1.1, 2.2, and 2.3 ID3 tags. Before you can properly import music files into FireBall, you should first convert all of your MP3 and FLAC files to use ID3 version 2.2 or 2.3 tags. There are several programs available to do this including iTunes, however since iTunes does not support FLAC files you cannot use it for editing ID3 tags embedded into FLAC files.

Media Rage is a Mac OSX program that can edit ID3 tags embedded into MP3 and FLAC files. Escient recommends that you use this software for editing ID3 tags in your FLAC files. Please visit the Chaotic Software web site to download a trial copy of this great software.

http://www.chaoticsoftware.com/ProductPages/MediaRage.html

Media Rage ID3 Editor

Note: Because the CONTENT volume is a read-only volume, you cannot edit anything. You must first copy any files you want to edit onto your Mac and then import them back into your FireBall, replacing the originals. Please see the section ***Importing Music Into FireBall*** for instructions on how to get your music files into your FireBall using the IMPORT volume.

Importing Music Into FireBall

FireBall's CONTENT volume is read-only, which means you can't write to it or use it for importing music files from your Mac to your FireBall. There is a way! FireBall actually provides two server volumes, one for reading your music collection and one for importing your music collection. The difference is that the IMPORT volume is a writeable volume while the CONTENT volume is read only.

Connecting to the FireBall Server

Follow these steps to connect to your FireBall from your Mac OS X computer:

1. Go to the Finder and select **Connect to Server…** from the Go Menu.

2. Enter "smb://" (without the quotes) and the name of your FireBall server into the Server Address field in the Connect to Server dialog. Example: smb://MyFireBall

3. Select the **Connect** button and wait for the Mac to locate your FireBall on the Network. When your FireBall is located, the SMB Mount dialog will appear.

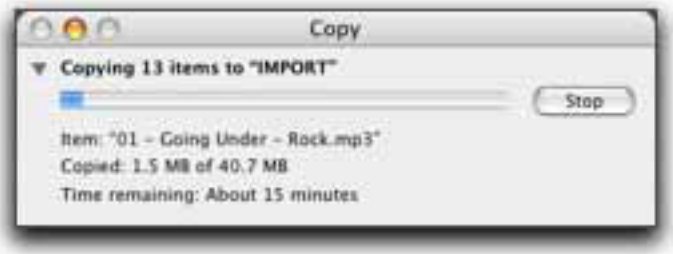
4. Select **IMPORT** from the share popup menu and click OK.
5. Depending on your network configuration, the SMB/CIFS Filesystem Authentication dialog might be displayed. If it is, just click the **OK** button. There are no usernames or passwords to enter for connecting to your FireBall server.

6. The IMPORT volume will be mounted on your Mac's Desktop.

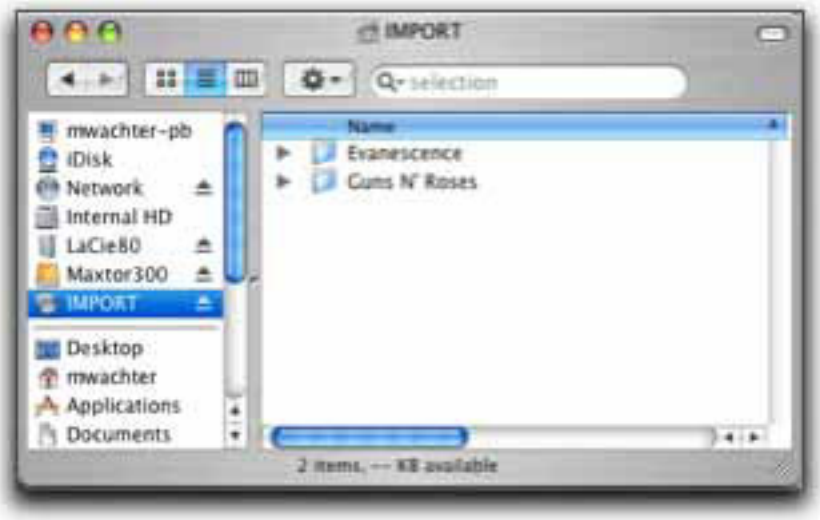
Importing your Music Files

Once the IMPORT volume is mounted on your Mac's desktop, simply drag and drop any MP3 or FLAC audio file into the IMPORT volume and the files will be copied to FireBall and added to the FireBall Music Library. You can drag and drop whole collections, a folder of songs, or just a single song.

When the music files are copied to the FireBall, you will see the new songs appear on your FireBall's Music Guide, under the" artist – album name" as defined in the file's ID3 tag.



Note: The IMPORT directory may contain special "cache files" in it if you have previously imported music into your FireBall. These files are just temporary cache files that appear to be the original music files, however they are not. They are just temporary "stub" files that indicate what you previously imported into your FireBall. You can delete these files without actually deleting the originals which physically reside on the CONTENT volume.



The IMPORT volume displaying the temporary cache files for an imported artist folder

Controlling FireBall from Safari

The FireBall contains a built-in web server capable of serving web pages specifically designed to control almost every aspect of the FireBall from a standard web browser, including Apple's Safari browser. Safari is the default browser included in Mac OS X 10.3. Microsoft's Internet Explorer 5.2.3 is also included with Mac OS X, but is not officially supported.

Requirements

In order to control your FireBall from Safari, you will need to meet the following requirements:

- Your Mac and FireBall must be on the same Ethernet network
- Mac OS X 10.3 or later
- Safari version 1.2.3 or later

Connecting to Your FireBall

Before you can connect to your FireBall from Safari, you must obtain the "IP Address" of your FireBall. Follow these steps to determine the IP Address:

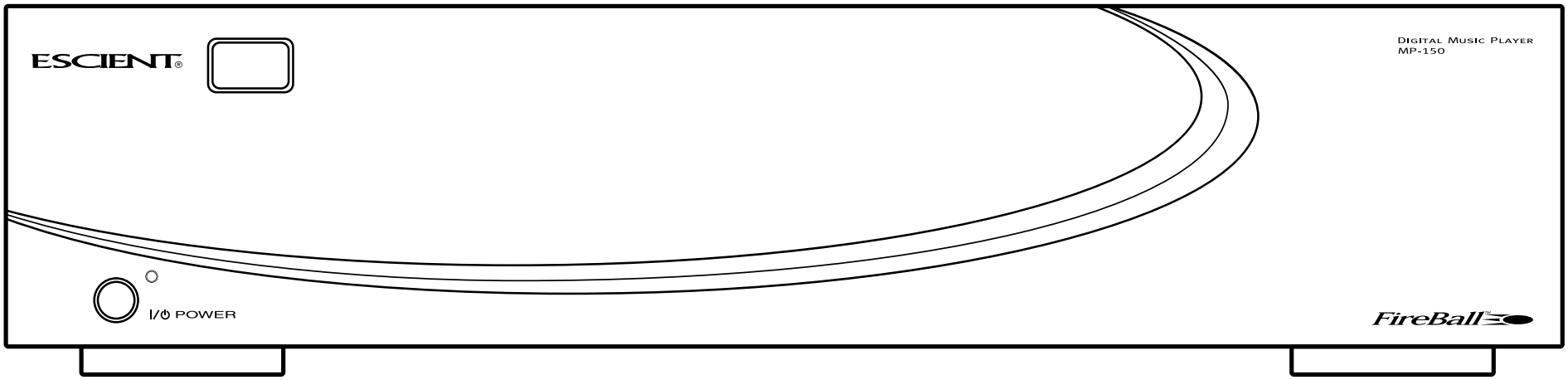
1. Press the SETUP key on the remote to display the Setup menu.
2. Select the Utilities menu item.
3. Select the System Information menu item.
4. Write down the IP Address of your FireBall's Ethernet connection. This number is located in the bottom right of the System Information screen and consists of four numbers separated by periods. Example: 192.168.1.1
5. Press the SETUP key again to exit Setup

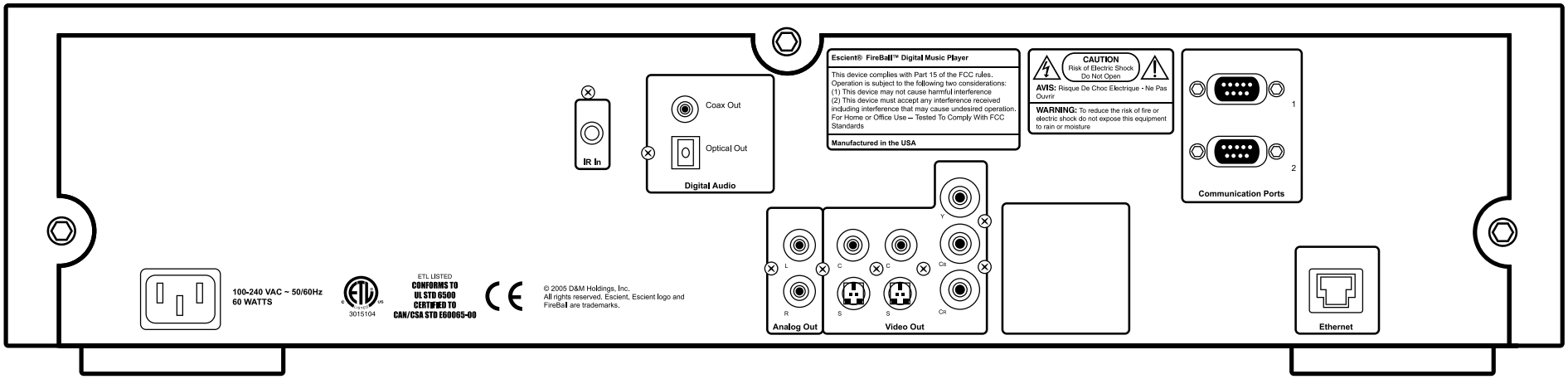
On your Mac, open Safari and enter the IP address of your FireBall into the Address Bar and press the Return key on your keyboard. You should now see the familiar FireBall user interface on your Mac.

Controlling Your FireBall

The FireBall Web Client Interface is the graphics and control system web pages that appear in your Safari browser. From this web pages, you can control almost every aspect of your FireBall, just as you would from the original IR remote and TV.

You will notice that unlike the TV user interface, there are buttons along the left and right edges of the web browser. These buttons duplicate the features found on your remote control.


ESCIENT®
DIGITAL MUSIC PLAYER
MP-150
I/⏻ POWER
FireBall™


IR In
Coax Out
Optical Out
Digital Audio
Escient® FireBall™ Digital Music Player
This device complies with Part 15 of the FCC rules. Operation is subject to the following two considerations:
(1) This device may not cause harmful interference
(2) This device must accept any interference received including interference that may cause undesired operation.
For Home or Office Use – Tested To Comply With FCC Standards
Manufactured in the USA
CAUTION
Risk of Electric Shock
Do Not Open
AVIS: Risque De Choc Electrique - Ne Pas Ouvrir
WARNING: To reduce the risk of fire or electric shock do not expose this equipment to rain or moisture
1
2
Communication Ports
100-240 VAC ~ 50/60Hz
60 WATTS
3015104
ETL LISTED
CONFORMS TO
UL STD 6500
CERTIFIED TO
CAN/CSA STD E60065-00
© 2005 D&M Holdings, Inc.
All rights reserved. Escient, Escient logo and FireBall are trademarks.
L
R
Analog Out
C
C
S
S
Y
CB
CR
Video Out
Ethernet

Make Sure You Have the Latest and Greatest!

Thank you for purchasing another award winning Escient product. All Escient Fireball products support free software updates that are automatically downloaded over your Internet connection, usually during the late evening hours.

If this is your first time setting up your FireBall, please perform a **Manual Software Update** after completing the on-screen Quick Setup and Registration. This will ensure that you have the latest and greatest software on your new FireBall.

Follow these instructions to check for a **free** software update:

1. Complete the on-screen Quick Setup screens and Register your FireBall.
2. When you see the Music Guide, press the **SETUP** key on the remote.
3. Select the **Utilities** menu item.
4. Select the **Software Update** menu item.
5. Select the Update button.
6. Wait while FireBall connects to the Escient server and checks for a software update.

If your FireBall needs a Software Update, the new update package will automatically be downloaded and installed onto your FireBall. FireBall will then reboot itself and the red light on the front panel will begin to flash. When the red light stops blinking, the update process is complete and you are ready to enjoy your music!

If you have any questions with the Software Update feature, please contact Escient Technical Support at 1-800-ESCIENT.

Thank You!

The Escient Team

PRODUCTS FOR THE HUMAN INTERFACE.

6325 Digital Way • Indianapolis, IN 46278 • www.escient.com

Thank You

The team at Escient would like to take this opportunity to thank you for your purchase of one of our Internet-enabled entertainment management products. Escient is committed to providing our customers the most technologically advanced, yet easier-than-ever to use products that converge the power of the Internet with home entertainment devices. To maximize your enjoyment, please take a few minutes to review the enclosed Installation and User's Guide. It will guide you through all the features and benefits of your purchase.

If you should need assistance, please call our Customer Support line at 800.372.4368, and select #3 during our voice menu. You may also email us at support@escient.com.

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